EDUCATIONAL ENVIRONMENTS OF ELEMENTARY SCHOOLS IN OKLAHOMA

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PREFACE

This study is concerned with the educational environments of elementary schools in Oklahoma as fifth and sixth grade pupils perceive it. The primary objective is to determine if particular characteristics of the schools have any relation to the way the pupils perceive the educational environment. The other objective is to provide information relevant to the educational environments of elementary schools to educators who are concerned with the reality existing in their schools.

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Finally, deepest appreciation is expressed to my wife, Joyce, our sons, John and Paul, and our daughter, Jane, for their time, patience, encouragement, and understanding during the entire time required to complete this study.

The opinions expressed herein do not necessarily reflect the position or policy of the U. S. Office of Education, and no official endorsement by the U. S. Office of Education should be inferred.

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CHAPTER I

INTRODUCTION

Recent modifications of the organizational structure and instructional techniques being employed in the modern elementary school reflect the axiom that individual differences exist among elementary school age children and that these differences are educationally significant. The trend in the field of elementary education is to attempt to minimize and/or resolve instructional difficulties brought about by individual differences among children through such devices as the nongraded school, the ungraded primary, school team-teaching, continuous progress, multi-media approach, computer-assisted instruction, and other organizational or instructional schemes (Dobson, 1968).

One can safely assume that attempts have and are being made to alleviate instructional difficulties through various organizational schemes, and that the modern elementary school teacher is more sophisticated in her approach to instruction than her counterpart of a decade ago. Nevertheless, children in greater numbers seem to be encountering learning difficulties similar to those of the past. This does not necessarily suggest that learning problems are increasing among elementary school children but that perhaps teachers are becoming more adept in the identification and referral of individuals evidencing learning disabilities.

Mere cognizance of the fact that children are still experiencing failure in many instances at the elementary school level will not resolve the problem. The fulfillment of an individual's personal need is essential before directed learning can take place. These needs must be met by the child's environment, both in school and out, before he can become a full-fledged learner who is working up to his maximum learning potential. The school does not have control over the entire environment affecting the child's learning potential, but it can be safely assumed that the school has enough influence on this corner of the child's universe to accept some responsibility for causal factors which ultimately influence his successes and failures.

An analysis of the perceptions of over 12,000 students from more than one hundred elementary schools toward the nature of their educational environments revealed that there is an urgent need for principals and teachers to create refreshing educational surroundings that meet the personal and academic needs of children (Sinclair, 1968). A number of schools are already designing programs that emphasize the total atmosphere of the school.

Up to now, there has been considerable research on individual differences, but relatively little has been done to measure differences among environments with which individuals interact. Different environments affect children in different ways, and to ignore variation in school climates is to limit our understanding of the various ways students think and feel.

As the educational environment influences the individuals within that environment, a study to assess the pupils' perceptions of the educational environment should provide new insight into situational

determinants of social, physical, and intellectual significance, thus assisting the staffs of participating schools in the planning of educational programs that are relevant to their specific local situations.

While a descriptive study cannot directly bring about any change in a local school's environment, a report of a school's environment as perceived by the pupils who live in that environment can serve as the catalyst to move principals and teachers to create fresh educational surroundings that meet the personal and academic needs of children. Awareness of a situation is the first step toward bringing forces to bear on changing that situation.

Justification for the Study

This research project assessed the educational environments of selected elementary schools in Oklahoma for the purpose of providing information to educators who are concerned with the reality existing in elementary schools and who desire to reform current educational programs, if the reforms are needed.

Elementary school environments are as different and complex as the students who live in them. Only when educators understand the influence of environments on students, will it be possible to change atmospheres that discourage learning and build and maintain environments that encourage and reinforce education that is responsive to the needs of elementary school youth.

Environmental studies provide valuable information for identifying and implementing needed changes in educational practice. Information about educational atmosphere makes it possible for educators to determine if current programs are resulting in the type and the intensity of

environment originally intended. Also, through the close examination of existing school conditions, it is possible for school faculties to identify practices that contribute to the status of the school's perceived atmosphere. School staffs should be able to use such information to plan educational programs, such as: developing curricula, creating abundant environments for children who have learning problems, selecting instructional materials, grouping students, designing behavioral objectives, and so on.

Different environments affect children in different ways, and to ignore differences in school environments limits the knowledge that is needed to clarify the directions in which to plan and promote change. Anderson (1970, pp. 6-13) addressed himself to this point when he stated:

> The current knowledge explosion creates not only opportunities for us but also very real challenges. For example, it is extremely difficult to defend obsolete items in the curriculum like Silas Marner when there are so many more important things that ought to be part of a child's experience. Similarly, the knowledge explosion has included information about the way children react to the various organizational structures that we now know to be possible.

In any event, the absence of research directly concerned with educational environments as perceived by pupils indicates that there is a need to investigate existing elementary school environments. Consequently, one of the major concerns of this study was to assess the educational environment of elementary schools in Oklahoma with the common characteristics of size of enrollment, rural or urban setting, socio-economic class, sex of principal, age of teachers, type of organization, and amount of open space facilities.

Another major concern of this study was to discover how similarities in the educational environments of elementary schools with common

characteristics differ from the similarities of the educational environments of schools with unlike characteristics.

Statement of the Problem

The purpose of this study, therefore, was to identify the educational environment of selected Oklahoma elementary schools as perceived by the pupils who attend those schools, and to determine whether schools with differing characteristics differ in their educational environments.

Answers to the following questions were sought.

1. Do elementary schools differ in their educational environment as perceived by pupils when the school enrollments differ?

2. Do elementary schools differ in their educational environment as perceived by pupils when the demographic features differ?

3. Do elementary schools differ in their educational environment as perceived by pupils when the socio-economic compositions differ?

4. Do elementary schools differ in their educational environment as perceived by pupils when the sex of the principals differs?

5. Do elementary schools differ in their educational environment as perceived by pupils when the age of the teaching staffs differ?

6. Do elementary schools differ in their educational environment as perceived by pupils when the organizational plans differ?

7. Do elementary schools differ in their educational environment as perceived by pupils when open space facilities differ?

Basic Hypotheses

Certain hypotheses were formulated and tested by a statistical analysis of the data collected. The investigation was directed at the following null hypotheses:

1. Educational environments of elementary schools located in low socio-economic class communities do not differ significantly from elementary schools located in middle class or higher socio-economic communities.

2. Educational environments of elementary schools located in urban settings do not differ significantly from elementary schools located in rural settings.

3. Educational environments of elementary schools having a female principal do not differ significantly from elementary schools having a male principal.

4. Educational environments of elementary schools do not differ significantly among elementary schools with enrollments under two hundred, between two hundred one and four hundred pupils, four hundred one and six hundred, and over six hundred pupils.

5. Educational environments of elementary schools do not differ significantly among elementary schools with the age range of fifth and sixth grade teachers under thirty years, between thirty and forty years, between forty-one and fifty years, and over fifty years.

6. Educational environments of elementary schools do not differ significantly among elementary schools employing self-contained classrooms, ability grouped classrooms, nongraded classrooms, departmentalized classrooms, and team teaching.

7. Educational environments of elementary schools with non-movable internal walls do not differ significantly from elementary schools with open space facilities for instructional purposes.

Definition of Terms

For the purposes of this study the following definitions are used:

Educational Environment--The conditions, forces, and external stimuli or situational determinants which foster the development of individual characteristics. The environment can be described according to the participants' perceptions of these determinants or probable stimuli as measured by a class's responses to forty statements which depict these perceptions.

Educational Environment Variables--Five dimensions which describe some of the reality that exists in elementary schools. The dimensions are Practicality, Community, Awareness, Propriety, and Scholarship. These five dimensions as defined below are taken from Robert L. Sinclair's dissertation (1968).

> Practicality--The statements in this variable suggest a practical, instrumental emphasis in the environment. Procedures, personal status, and practical benefits are important. Status is gained by knowing the right people, being in the right groups, and doing what is expected. Order and supervision are characteristics of the administration and of the classwork. Good fun, school spirit, and student leadership in school social activities are evident.
>
> Community--A friendly, cohesive, group-oriented school life is characterized by the combination of statements in this dimension. The environment is supportive and sympathetic. There is a feeling of group welfare and group loyalty which encompasses the school as a whole. The school is a community. It has a congenial atmosphere.
>
> Awareness--The items in this variable seem to reflect a concern and emphasis upon three sorts of meaning--personal, poetic, and political. An emphasis upon self-understanding,

reflectiveness, and identity suggest the search for personal meaning. A wide range of opportunities for creative and appreciative relationships to painting, music, drama, poetry, sculpture, and architecture suggests the search for poetic meaning. A concern about events around the world, the welfare of mankind, and the present and future condition of man suggests the search for political meaning and idealistic commitment. What seems to be evident in this sort of environment is a stress of awareness--an awareness of self, of society, and of esthetic stimuli.

Propriety--An environment that is polite and considerate is suggested by the statements in this dimension. Caution and thoughtfulness are evident. Group standards of decorum are important. On the negative side, one can describe propriety as the absence of demonstrative, assertive, rebellious, risk-taking, inconsiderate behavior.

Scholarship--The items in this variable describe an academic, scholarly environment. The emphasis is upon competitively high academic achievement and a serious interest in scholarship. The pursuit of knowledge and theories, scientific or philosophical, is carried on rigorously and vigorously. Intellectual speculation, and interest in ideas as ideas, knowledge for its own sake, and intellectual discipline--all these are characteristic of the environment.

Low Socio-economic Class Schools--Elementary schools identified as meeing the criteria of the Oklahoma State Department of Education and the United States Office of Education to qualify as E.S.E.A. Title I project elementary schools.

Middle Class Socio-economic Status Schools--Those elementary schools which do not qualify as E.S.E.A. Title I project schools and whose pupils come from homes in which parents, for the most part, are middle class white-collar or professional workers and who emphasize higher aspirations for education, living standards, family living, mores, and recreation in life.

Open Space Facilities--A school with open space facilities is any school with flexible, movable, or adjustable walls or a school without internal walls.

Self-contained Classroom--In a self-contained classroom one teacher has the total responsibility for an extended period of time for helping a group of children not only to acquire knowledge, skills, and facts, but to interrelate these learnings and apply them in meaningful situations.

Ability Grouped Classroom--In schools where classrooms are organized under the ability grouping concept, children with similar potential or achievement are assigned to one teacher who directs the instructional program for the children of this group.

Nongraded Unit--In the nongraded classroom, one teacher is responsible for the educational growth of a heterogeneous group of children in a self-contained classroom for an extended period of time, preferably two or three years, without established grade levels.

Departmentalized Classroom--Under a departmentalized classroom organization, each teacher has the responsibility for helping a number of groups of children acquire knowledge, skills, and facts in a single area of the learning program.

Team Teaching--In team teaching two or more teachers are cooperatively responsible for the educational and guidance programs of a large group of children in one or more grade levels for at least one year. These teachers are also responsible for group planning and evaluating.

Major Assumptions

For the purposes of this study the following assumptions will apply:

1. Research involving only a response variable is valid because it has the ability to describe and classify.

2. The perceptions of individuals living in an environment are a source of valid descriptions of that environment.

3. Behavior is a function of the transactional relationship between the individual and his environment.

4. Environment is considered to be made up of perceived aspects which constitute a probable stimulus for promoting particular individual characteristics.

5. School environments are measurable by the Elementary School Environment Survey.

6. Children who have attended a school for one year or longer can more accurately assess an educational environment of a school than children who have attended the school for less than a year.

7. If pupils agree, by a consensus of two to one or greater, that a statement is true about their school, then that statement is characteristic of the institution.

8. Although this study anticipates that elementary school environments are different from one another, it remains neutral with regard to determining whether the differences are desirable or undesirable.

Approach of the Study

The general plan employed in conducting the study may be outlined as follows:

1. A pilot study was conducted to validate written instructions to teachers for administering the ESES.

2. Schools selected to participate in the study were chosen by a random sample from all of the elementary schools in the state of Oklahoma.

3. The administrators of the schools selected were contacted by letter and invited to participate in the study (Appendixes A and B).

4. A cover letter endorsing the study was secured from the Oklahoma Association of Elementary School Principals (Appendix C).

5. When a reply via a prepaid postcard (Appendix D) was not received within two weeks of the mailing, the investigator mailed a second letter to the schools (Appendix E).

6. When a reply was not received within two additional weeks after mailing the second letter, the investigator mailed a third letter (Appendixes D and F) and then telephoned the school.

7. A letter of acknowledgement was mailed to each school that accepted the invitation to participate in the study (Appendixes G and H).

8. The investigator mailed copies of the instrument, answer sheets, and instructions for their use to the selected elementary schools who agreed to participate in the study (Appendixes I, J, K, and L).

9. All schools that returned completed ESES answer sheets to the investigator were notified by mail that the profile of their educational environment would be sent to them in September (Appendix S).

10. The responses of the pupils participating in the study were transferred to data cards by an IBM 1230 Optic Reader.

11. The appropriate statistical analysis for a descriptive study was made of the data.

12. The treatment of the data gathered was to discover the existence or nonexistence of measured differences in environments in relation to the selected variables, and to detect patterns in environments

existing among the selected schools as they relate to the criteria identified in the hypotheses.

13. A final report of the information gathered was prepared.

14. Information pertaining to individual schools was sent to each school participating in the study (Appendix M). The mean scores for each of the subenvironments of schools having identical characteristics to the individual school was also included with this information. The names of the schools with identical characteristics were not included. The information was marked "Privileged Information" since the schools had earlier been assured that identification of individual schools would not be a part of the study.

Source of Data

The procedure used to collect the data used in the present study is outlined as follows:

1. A forty-item instrument developed and copyrighted by Robert L. Sinclair (1968) was used to collect data. Two forms of the instrument were used (Appendixes I and J).

2. The data collected by the ESES were used to determine each pupil's perception of the educational environment of his or her school.

3. The collective perceptions of the pupils towards the selected variables or subenvironments were used as the source for describing the school environment.

4. Each school's score was determined by the number of statements that were judged characteristic of its environment.

5. A School Data Sheet was used to collect seven basic identification facts about each school (Appendix N).

Delimitations

For the purposes of this study the following delimitations applied:

1. One hundred eleven schools out of a twenty percent random sample drawn from all of the elementary schools in the state of Oklahoma participated in the study.

2. The pupil population was made up of children in grades five and six only.

3. The analysis of pupils' perceptions of their school was limited to replies received on the Elementary School Environment Survey.

4. Statistical analysis of the data was made through the use of nonparametric statistics to test for statistical significance.

Analysis of Data

The nature of this study required the use of the normative-survey method of research. Good, Barr, and Scates (1941, p. 287) state: "Normative-survey research is directed toward ascertaining the prevailing conditions. It seems to answer the question, 'What are the real facts with regard to the existing conditions?'" The following statement by these same authorities was further justification for selecting the normative-survey method:

> The word 'survey' indicates the gathering of data regarding current conditions. The word 'normative' is used because surveys are frequently made for the purpose of ascertaining what is the normal or typical conditions, or practice. . . . The compound adjective 'normative-survey' is applied to this method in order to suggest the two closely related aspects of this kind of study. (Good, Barr, Scates, 1941, p. 287)

Statistical analysis of the data was made through the use of the Mann-Whitney U test for categories that were limited to two dimensions,

namely demographic features, socio-economic composition, sex of school principal, and amount of open space facilities. The formula for the Mann-Whitney U test is (Siegel, 1956, p. 120):

$$U = n_1 n_2 + \frac{n_1(n_1 + 1)}{2} - R_1$$

where R_1 = sum of the ranks assigned to group whose sample size is n.

Statistical analysis for the data that was identified as having more than two dimensions, namely, enrollment size, age range of teachers, and organizational plans, was made through the use of the Kruskal-Wallis test. The formula for the Kruskal-Wallis test is (Siegel, 1956, p. 185):

$$H = \frac{12}{(N(N + 1)} \sum_{J=1}^{K} \frac{R_j 2}{n_j} - 3 (N + 1)$$

where k = number of samples

n_j = number of cases in jth sample

$N = \sum n_j$, the number of cases in all samples combined

R_j = sum of ranks in jth sample (column)

$\sum_{J=1}^{K}$ directs one to sum over the k samples (columns).

The level of confidence was set at the .05 level for all the statistical analyses made of the data.

Format for Succeeding Chapters

Following this introductory chapter, Chapter II is devoted exclusively to a review of research and literature pertinent to the present

study. Chapter III consists of a description of the procedures used in conducting the study and collecting the data. Chapter IV presents a statistical treatment of the data collected. Chapter V summarizes the entire study, presents the findings of the study and the conclusions drawn from them, and makes recommendations.

CHAPTER II

REVIEW OF RELATED RESEARCH AND LITERATURE

In Chapter I, the writer portrayed the need for research in the area of pupils' perceptions of the educational environments of the schools they attend and how these perceptions determine differing characteristics of schools with different educational environments. This second chapter focuses upon relevant research and literature in these areas. Specific areas of the problem are discussed. The areas include: perception, the value of pupils' perceptions, elementary school environments, environments of other institutions, environmental press, and some characteristics of schools. The review of each area includes actual research findings and views of authorities.

Perception

Earl Kelley (1947) reported on experiments at the Hanover Institute which furnished laboratory proof of a number of visual facts which for a long time had been in the realm of conjecture and speculation. The experiments demonstrated that we do not receive our perceptions from the things around us, but rather that our perceptions come from within us.

More recently Kelley (1962) has said that "perception is the stuff of growth for the psychological self. The perceptive process is the only avenue by which the self can be fed." Kelley continues to

identify the elements of perception by stating:

> One of the most revealing facts about perception is that it is selective. We do not see everything in our surroundings. . . . To perceive them (coincidences) all would cause pandemonium. We therefore choose that which the self feeds upon. The direction of the growth of the self depends upon those choices.
>
> The choices seem to be on the basis of experience and unique purpose. . . . There is ample evidence now to show that all living tissue is purpose, . . . In perception, purpose operates automatically most of the time. And so, just as we do not eat everything, our psychological selves are particular as to what they feed on. What they take in has to suit their purposes, and has to fit onto their past experiences. (Kelley, 1962, p. 14)

Raths (1966, p. 9), in an attempt to elaborate on the meaning of the phrase "effective functioning" taken from the 1966 ASCD Yearbook Committee's question, "What is the relationship between curriculum experiences that youngsters receive in schools and the promotion of their effective functioning?", identifies three relationships to reality for an effectively functioning person. One of the relationships is "perceptions of reality." The following quotation clarifies his definition of the term.

> . . . to be able to function effectively, a person's perceptions must be relatively free from need-distortion. Mental health specialists have felt for many years that 'correct' reality perception is a valid indicator of the effective functioning of an individual. However, the word 'correct' need not connote that there is one and only one correct perception. Rather, it suggests that however a person perceives the world, there must be some data available to him that serve to support his perceptions. This dimension implies an openness to experience and a tolerance of instances that run counter to currently held beliefs and positions. (Raths, 1966, p. 10)

King and Kerber (1968), in their discussion of perception and attitude formation of the American child, considered four areas in which subcultural affiliation can significantly affect a child's perceptions and attitudes: race awareness and prejudice, sex awareness,

humor, and food preferences. Their conclusion was that young children's attitudes seem to be shaped by their differing subcultural experiences.

In a recent investigation involving thirty-seven Negro children and thirty white children of preschool age the relationship between race and perception of racially related stimuli was studied. The study involved two stages: first, a normative study which compared white and Negro children's evaluations of assorted objects; second, an experiment to see whether or not good objects were associated with white stimuli and bad objects were associated with black stimuli.

The data gathered in the study (Stabler, 1969) supported the basic prediction that children would guess that the "good" objects were in the white box and that the "bad" objects were in the black box. The evidence from the study further suggests that the racial attitudes of the larger society have been incorporated by preschool children of both races, but by white children more than by Negro children.

The Value of Pupils' Perceptions in the Educational Schema

An educational philosophy which embraces the belief that schools should be for children implies that what children think and perceive is important. This view of the purpose of schools seems to be gaining in acceptance. Casey and Liza Murrow (1971) reflect it exactly in their recently published book telling about the inspired work of English Primary Schools in the apt title, Children Come First.

There is much recent evidence in educational research to indicate that to limit what we know about the reality that exists in a classroom

is to limit what can be done to move in the direction of creating more optimum conditions for children both in the realm of learning and humaneness. As pointed out by Stern (1970), there may be some disparity between the perceived situation and the veridical one; however, for the pupils themselves the perception is the reality.

Other evidence to indicate that students' observations provide an accurate picture of the classroom environment is found in studies by Remmers (1963) and Ehman (1970). Steele, House, and Kerins (1970, p. 448), working with part of a large-scale evaluation of the state gifted program in Illinois, took the following approach in the development of the Class Activities Questionnaire(CAQ):

> If social behavior, goals, attitudes, and interests are in large measure acquired through environmental conditioning, it would seem reasonable to identify the environmental press and structure the situation to be more congruent with the purposes of the school. (Steele, House, and Kerins, 1970, p. 448)

The CAQ assesses four major dimensions of the instructional climate. The authors of the CAQ believe the students are in a much better position than the teacher to report on the emphasis actually given to various class activities. They also state:

> Moreover, the nature of the instructional climate depends in part on the way it is perceived by the students themselves. Not every student is an accurate observer; however, it is the consensus of student judgments that is of concern. (Steele, House, and Kerins, 1970, p. 448)

Davis (1962) analyzed data from 33,982 graduating seniors sampled from 135 American colleges and universities in terms of campus differences in true climate of intellectualism and perceived climate of intellectualism. One of the five major conclusions listed for the study was that "The perceived value climate is directly related to the 'true' value climate." (Davis, 1962, p. 126)

Walberg (1963) employed a new measure, the Classroom Climate Questionnaire, in an attempt to assess the relationship between the teacher's personality and attitudes and their influence on the climate of the classroom. The conclusions of the study suggested several predictable relationships between teachers' personalities and classroom climates, which supported the hypothesis of the study derived from the Getzels-Thelen socio-psychological theory. The hypothesis was "The personality patterns of the teacher, his needs, values, and attitudes, predict the climate of his classes." From this Walberg makes the suggestions, which may seem to be flimsy to some, that one justification for studying the classroom's climate as perceived by the pupils living in that climate could be to "tell the personality pattern of the teacher." (Walberg, 1963, p. 167)

Elementary School Environments

Bloom (1964, p. 187) defines environment as "the conditions, forces, and external stimuli which impinge upon the individual. These may be physical, social, as well as intellectual forces and conditions." The range of environments goes from the most immediate social interactions to the more remote cultural and institutional forces. Bloom regards the environment as providing a "network of forces and factors which surround, engulf, and play on the individual." He identifies some environmental variables which are most clearly related to differences in school achievement. They are likely to be the following:

1. Meaning which education comes to have for one's personal advancement and role in society.
2. Extent to which affection and reward are related to verbal-reasoning accomplishments.
3. Encouragement of active interaction with problems,

> exploration of the environment, and the learning of new skills. (Bloom, 1964, p. 190)

Ragan (1966, p. 195) defines the term "classroom environment" as "those physical, intellectual, emotional, and social factors that directly affect living and learning in the classroom."

During the past decade there has been an upsurge in the amount of research done on human environments. Most investigations designed to explain environments are centered on describing conditions and forces existing in homes, in colleges and universities, and to a more limited degree, in secondary schools. Few of the investigations were directly concerned with the atmosphere of elementary schools. Investigations made from the vantage point of the child's perceptions are almost non-existing.

Foshay (1970, p. 145), in relating what is obviously clear about the new educational institution emerging out of the chaos of the last quarter of this century, affirms that the new educational institution will be "devoted mainly, and primarily, to the development of valid grounds for self-respect among those who take part in it." The old cleavages between pupils and teachers will be less profound and people will enter into one another's lives in more dimensions than we have permitted conventionally. Humanizing the environment calls for allowing human characteristics to interact. Foshay expresses it in the following manner:

> To be a man, we say, is to be complex. We interact with our environment in every human way, all the time. We think about it, we live in it, we feel about it, we socialize about it, we have aesthetic responses to it, we consider it with awe, and we, of course, interact with it physically. Each of us does all of these things in his own style. To be humane, therefore, is to allow for all of these characteristics to act at their most human level (or their least brutish level)

> and to allow them to interact in ways that are unique to each person. (Foshay, 1970, p. 147)

One study that measured psychological pressures created by aspects of the elementary school environment from the vantage point of the child's perceptions was conducted by Berreman (1967). The study involved the development of an instrument to measure the psychological pressures of the elementary school environment as perceived by responding students who had fifth grade reading ability or better.

The study involved a total of 897 students, eighteen faculty members of nine elementary schools, and the ratings of seven observers. The data were processed through a multiple discriminant analysis program on a CDC 3400 computer. The findings of the study were that the instrument described the major environment of each school reliably and with validity. Five distinctly different elementary school environments were described, and five types of mental health services that had been identified were each found to belong to distinct environmental types (Berreman, 1967).

Another investigation which used students' responses to an instrument was conducted by Glick (1970). A sixty-item Likert type attitude scale and a "Naming Your Friends" sociometric instrument were administered to pupils from fourteen sixth-grade classrooms representing nine schools within the Kansas City, Missouri school district. An analysis of the data collected showed that: (1) Attitudes toward school were affected in unexpected ways by sex and socioeconomic status. (2) Interpersonal attraction and similarity of attitudes were generally positively related.

Robert Sinclair (1970) reported on a study that describes various aspects of the elementary school environment. The study had as its

purpose to identify the educational environment of each of several schools and to analyze particular differences and patterns of commonality existing among schools. The environment described was interpreted from the collective perceptions of students participating in the life of the school. What the students perceived with a high degree of consensus was considered characteristic of the environment.

Environments of Other Institutions

Stricker (1970), because he recognized and appreciated the fact that the effects of higher education are intimately bound up with the environment for learning provided by the institution, surveyed in detail one college community, attempting to study the development of the views of the characteristics of the environment, and locating some correlates of these views.

Eight hundred twenty-one students drawn from the entire undergraduate population were included in the study. The two measuring instruments employed in the project were the College Characteristics Index (CCI; Pace and Stern, 1958) and the Activities Index (AI; Stern, Stein, and Bloom, 1956). The following quotation summarizes the objectives and results of the study.

> The AI was used to measure personality needs, scored on factors of intellectual orientation, dependent needs, emotional expression, and educability. The CCI was used to measure student views of the college environment, scored on factors of intellectual climate and nonintellectual climate.
>
> Data analysis was completed in three states--(1) Respondents were compared with nonrespondents on all possible categorical and quantitative variables to assess all possible sources of sampling bias, (2) The relationships among quantitative variables were assessed by means of the Pearson product-moment correlation, and (3) Simple, randomized analyses were performed on the relationships among all study variables.

> Results indicated that respondents were more likely to be females, freshmen, and sorority members, while nonrespondents were more likely to be business majors and fraternity members. Males had higher intellectual orientation needs than females, and science majors held the highest intellectual orientation needs. Females had higher dependency needs and higher emotional expression needs than males. (Stricker, 1964, p. 1)

In Marks' study (1967) at Georgia Institute of Technology involving 570 freshmen the College and University Environment Scales (CUES) was used for assessing college student perceptions of their environment. The CUES is an instrument for obtaining a description of the college from the students themselves, who presumably know what the environment is like because they live in it and are a part of it.

Many of the one hundred fifty items forming the CUES fall within the category of high response variability (fifty percent true and fifty percent false responses). Marks hypothesized that this variability is attributable to certain characteristics of the items and of the respondents. To test this notion the responses of the freshmen were related to four characteristics of the items, personality and motivational variables, and the students' reported familiarity with the college environment.

Two item parameters and eleven personality and motivational factors were found to be related to item response and item variance. Environment familiarity and ambiguity were not related to item response and item variance (Marks, 1967).

Anderson and Walberg (1967) in an investigation of the relationship between emotional climate and learning, gave the Classroom Climate Questionnaire to random samples of students in forty-nine twelfth-grade physics classes from all parts of the country. The Classroom Climate

Questionnaire was correlated with the Test on Understanding Science, a Physics Achievement Test, and the Semantic Differential for Science Students. A twenty-five percent random sample of each class took the Classroom Climate Questionnaire while a fifty percent random sample took the other three tests.

Classes with high gains in Science Understanding were perceived by the students as containing more frictions, strict control, personal intimacy, goal direction, and subservience than classes having low gains. Learning situations were seen as those having intense interaction between teacher and students with the class being well organized and controlled by the teacher but where students were free to question and learn in a relatively informal atmosphere.

The authors concluded that despite the unreliabilities of the climate predictors, the sampling inadequacies, and the preliminary nature of their study,

> . . . we suspect that since students are the primary receivers of psychological influence from their teacher and fellow students, they are more adept at perceiving, judging, and rating those multivariate aspects of the socio-emotional climate of their classes which make for their own learning. . . . If similar results are obtained on replications of the present research series . . . it will be possible to explore further the manner in which classroom climate leads to different learning outcomes. (Anderson and Walberg, 1968, p. 178)

A recent study using student perceptions was that carried out by Tuckman (1970). The purpose of the study was to develop a conceptually "pure," valid, and reliable measure of teacher directiveness. The instrument constructed is the Student Perception of Teacher Style (SPOTS). It is a thirty-two item, nine-point student rating scale. The rationale for the need for the instrument is in the argument that for mass research, the utility of the "sign" or behavior count methods

is questioned due to the elaborate time sampling, the construction of matrices, and scoring systems requiring highly trained observers and countless hours of classroom observation.

The sample used in the study consisted of twenty-two eleventh and twelfth-grade male teachers from two vocational-technical high schools, twelve of which taught vocational subjects and ten of which taught non-vocational subjects. Each had at least five years of teaching experience. Three hundred sixty-three male eleventh- and twelfth-grade vocational-technical high school students completed the SPOTS.

In addition, each of the twenty-two cooperating teachers was observed by two trained observers for a minimum of two class sessions and was rated on two observer rating scales. The scales used were the Observer Rating Scale, which consisted of nineteen items paralleling the SPOTS in content and form, and the Teacher Style Checklist, a scale composed of twenty items which required trained observers to make one of three judgments. After this treatment a revised SPOTS was constructed (Tuckman, 1970).

Over-all, the SPOTS appeared to satisfy the five criteria suggested by Remmers for judging the adequacy of student rating scales.

> The scale showed (a) objectivity, it yielded verifiable and reproducible data; (b) reliability, it was consistent over judges; (c) sensitivity, it discriminated between teachers and teaching styles; (d) relevance, it was related to the construct of directiveness (as evidenced by its relation to the ORS and further strengthened by the factor analysis); (e) utility, it was high in efficiency and practicality. (Tuckman, 1970, p. 396)

The concept of directive teaching used in the study was defined as formal planning and structuring of course work, minimization of informal work or small group work, and rigid structuring of such small group work as is employed.

Environmental Press

The term "press" was defined by H. A. Murray (1938, p. 748) in the glossary of his book as:

> The kind of effect an object or situation is exerting or could exert upon the subject. It is a temporal gestalt of stimuli which usually appears in the guise of a threat of harm or promise of benefit to the organism.

Murray is credited with the identification of the concept of environmental press (Feldman, 1971; Pace and Stern, 1958; Steele, House, and Kerins, 1971). The term was developed out of the concept that everything that can supposedly harm or benefit the well-being of an organism may be considered pressive, and everything else inert. Murray (1938, p. 118) stated that the conception of press came to him and others rather late in the course of their explorations in personality. Murray further stated:

> Suffice it to say that one can profitably analyze an environment, a social group, or an institution from the point of view of what press it applies or offers to the individuals that live within or belong to it. . . . Furthermore, human beings, in general or in particular, can be studied from the standpoint of what beneficial press are available to them and what harmful press they customarily encounter. (Murray, 1938, p. 120)

In a recent article by Steele, House, and Kerins (1971) reporting on an instrument developed for assessing instructional climate through low-inference student judgements, instructional climate was defined as "An aspect of environmental press defined by the characteristic demands of the classroom environment as perceived by the students to whom they are directed." Stated differently, they said the environmental press was composed of the "strengths and relationships of characteristic stresses, pressures, rewards, and other influences of the environment." (Steele, House, and Kerins, 1971, p. 453)

Stern, Stein, and Bloom (1956) elaborated the environmental press concept by applying it to assessment studies and showing that an improvement in the prediction of performance was possible by defining the psychological demands of the situation in which the performance takes place. The College Characteristics Index (CCI) developed by Pace and Stern (1957) applied the concept of environmental press to college atmospheres. Pace and Stern (1958) in an article considering the idea that college cultures may be seen as a complex of environmental press, have stated that the term "press" can be regarded as a general label for stimulus, treatment, or process variables. There was no development in the objective measurement of environmental press prior to their research in 1957 (Pace and Stern, 1958). Recognizing that college students and college environments differ, they have stated, "The concept of press offers a way of viewing the environment which is comparable analytically and synthetically to the more familiar ways of dealing with the individual." (Pace and Stern, 1958, p. 274)

Pace, in research concerning an analysis of a nation-wide sample of college environments, indicated that institutions of higher education differ considerably from one another when measured along the environmental variables labeled scholarship, community, practicality, propriety, and awareness (Sinclair, 1969b). These five environmental variables are the subenvironments assessed by the College and University Environment Scales (CUES) developed by Pace (1965). Sinclair (1968) makes the same assumptions about the environmental variables of scholarship, community, practicality, propriety, and awareness, in the modified statements taken from the CUES in developing the Elementary School Environment Survey (ESES).

Feldman (1971), in a study which measured college environments, contended that a problem with CCI and CUES hinges on the fact that many of the items of these instruments ask for the students' perceptions of aggregative characteristics of the student body rather than each student's own feelings. He states that for some of the characteristics, it is possible that students merely report rumors, engaging in wish fulfillment, or stereotyping. Feldman (1971, p. 55) further states:

> The important point, however, is that from scores on CCI and CUES alone one is not able to differentiate fictions from nonfictions, nor is one able to discern the extent to which public belief and private behavior are discrepant.

Murray (1938, p. 122) addresses himself to this criticism when he states:

> In identifying press we have found it convenient to distinguish between 1, the alpha press, which is the press that actually exists, as far as scientific inquiry can determine it; and 2, the beta press, which is the subject's own interpretation of the phenomena that he perceives. . . .
>
> The beta press, of course, is the determinant of behavior, since if a child believes that a situation signifies a certain thing it will be this conception that will operate rather than what psychologists believe the situation signifies. This has encouraged analysts to say that the actual (alpha) conditions do not matter. It is the child's version that is all important.

Thistlewaite (1959), in a study of college press and student achievement, administered the CCI to nine hundred sixteen National Merit Scholars and Certificate of Merit winners at thirty-six colleges. In reporting his findings, he listed three different kinds of press: Student Press, Faculty Press, and College Press. The summary of his findings suggests that the college environment is an important determinant of the student's motivation to seek advanced intellectual training. Also, the student cultures and faculty press which stimulate

achievement in the natural sciences appear to differ from those which stimulate achievement in the arts, humanities, and social sciences.

Characteristics of Schools

One of the purposes of the present study was to determine if characteristics of schools such as size, socio-economic composition, demographic features, sex of principal, age of teachers, organizational plans, and open space facilities influence the perceptions pupils have about their school.

A review of selected sources of information pertaining to these aspects of educational environment as perceived by pupils appeared to be new to descriptive literature. However, according to Appleberry (1969), much research investigating the relationships between school climate and other school variables has been spawned by the development of the Organization Climate Description Questionnaire (OCDQ) by Halpin and Croft (1963). They identified and described eight dimensions of school climate; four of the dimensions involve the behavior of the principal, and four of the dimensions involve the behavior of the teachers.

Halpin (1967) proposed that socioeconomic factors may be related to school climate. He gave high population density, low socio-economic status of school clientele, problems of racial "mix" or "unmix," and the fact that the schools are usually members of a large school system as some of the possible situational factors that explain the school climate.

An investigation by Anderson (1964) was made to discern if there were any relationships between the organizational climate of elementary

schools and selected personal variables of the principals. Organizational climate was defined as the "personality" of the school and was measured by the OCDQ.

A sample of eighty-one schools was drawn from a population of elementary schools in the Twin Cities Metropolitan Area. All professional staff members completed the OCDQ and the principals also completed the sixteen PF Questionnaire, Study of Values, and a biographical inventory. Relationships between organizational climate dimensions and personal variables were analyzed using correlation coefficients, ANOVA, and Chi-square techniques. Teachers' and principals' perceptions of climate were analyzed using "t" tests (Anderson, 1964). The findings, conclusions, or implications of Anderson's study, while it presented many significant relationships, failed to be of value in their relationships to the hypothesis of the present study.

Cole (1965), in another study using the Organization Climate Description Questionnaire and factors of communication, compared school size to these factors. The conclusion reached was that schools which ranged from two to four teachers per age level probably represent the most nearly optimum sized schools as far as organizational climate is concerned.

Brust (1966) concluded from his study that the school organization does have an effect upon teachers and that the organization must be thought of in terms of a total unit of interdependent dimensions and not as a number of discrete, autonomous parts. A search of recent research for studies dealing with school organization and its effects on pupil perception was not fruitful.

The ASCD takes the stand in the 1962 Yearbook that the organization of the school does make a difference if creative experiences in children are to be facilitated.

> The buildings, their type of construction, location and size are highly influential factors for openness which affect creativeness. . . . Flexible, movable, adjustable walls may add different dimensions to new ways of organizing classroom settings for creative learning. This will facilitate all types of group work, but at the same time it should provide a place for the student 'to get away from it all.' (Combs, 1962, p. 162)

There appears to be a significant difference among parents of different socio-economic status and how the parents relate to their children, especially in terms of the function of education in the child's life as perceived by the parent. It may be expected that adults of low socio-economic status will be primarily concerned with keeping the family fed, clothed, and housed, and therefore education will be relegated to a secondary position (Kluckhohn, 1947).

Bell (1962, p. 143) said that,

> Frequently in the lower classes there is a feeling of 'inevitability' of class position with corresponding beliefs that the young person should make the best of the situation rather than trying to change it. Education beyond that of the family class level may be seen as hopeless or a waste of time.

The intensity of interest in education by different socio-economic status groups may be judged in the light of the needs satisfied. Maslow (1954) defined five basic needs of humans. At the lowest level are the physiological needs. Next are needs for safety, then belonging and love, above these is the need for esteem, and the highest level is that of self-actualization (Goble, 1970). These needs form a Guttman scale. This means that, in order for a need to be realized, all levels of needs below that must first be satisfied. Parents in the lower socio-economic levels may never get beyond satisfying the first need

level. There may be times when they do not satisfactorily meet even the first level needs.

In contrast, the middle and upper socio-economic status parents are more concerned with the third, fourth, and fifth levels in Maslow's taxonomy of needs. Rosen (1956) stated that because the middle class parent values education more highly than the lower class parent, ". . . parental demands and expectations, as well as rewards and punishments, will center around school performance." He also suggested that children in the middle class are likely to actually be taught to be successful:

> . . . to embrace the achievement value system which states that given the willingness to work hard, plan and make proper sacrifices, an individual should be able to manipulate his environment so as to ensure eventual success. (Rosen, 1956, p. 211)

A study that investigated the relationship between the organizational climate of the elementary school and three of the same variables stated in the present study's hypothesis was conducted by Flanders (1966). The three variables are (1) rural or urban location of the school, (2) size of the school faculty, and (3) length of individual teacher tenure in the school.

The OCDQ was administered to the faculty members of each school selected for the study. The final sample included two hundred fourteen participating schools and 3,913 teachers. Chi-square analysis revealed that the null hypothesis was untenable in eighteen of the twenty-seven sample and sub-sample determinations (Flanders, 1966).

Flanders listed the following as being some of the more important findings of the study:

1. Urban white and rural white faculties perceived the organizational climate of their schools as being significantly different.
2. The faculties of rural Negro and urban Negro schools did not perceive the organizational climate of their schools as being significantly different.
3. In the sub-sample of urban white schools, there were significant differences between the perceptions of the faculties of large and small schools regarding the organizational climate of their schools.
4. White and Negro faculties differed significantly in their perception of the organizational climate of their schools.
5. In the sub-sample of white teachers, there was a significant relationship between the length of teacher tenure in the school and the teacher's perception of the organizational climate of the school. (Flanders, 1966)

Summary

A review of educational environments research and views has lead to the identification of various aspects of environments. The common aspect of all the material reviewed was the perceptions of the individual who lived in the various environments. Bloom (1964) stated that the environment provided a network made up of forces and factors which surround, engulf, and play on the individual.

Much of the research dealing with educational environments relating to human perceptions were carried out in settings other than the elementary school. Yet, as Kelley (1947) stated, "Perception is the stuff of growth for the psychological self", these studies have relevance to the present research.

Research pertaining to the characteristics of size of school, socio-economic composition, demographic features, sex of principal, age range of teachers, organizational plans, and open space facilities as they relate to educational environments as perceived by pupils is new to descriptive literature.

The overwhelming majority of the research reviewed was concerned with the concept of "press." Most of the studies used the term and most others alluded to the concept. The term "press" was first defined by H. A. Murray in 1938.

CHAPTER III

PROCEDURE AND METHOD

The purposes of this study were to assess the educational environments existing in schools as the pupils who lived in that environment perceived it and to determine if environmental differences exist among groups of schools with differing characteristics of enrollment size, demographic features, socio-economic composition, sex of principal, age of teachers, organizational plans, and open space facilities.

The requirements of this study were fulfilled by collecting data from fifth and sixth grade pupils in one hundred ten Oklahoma elementary schools by having them respond to an instrument consisting of forty statements depicting elementary school reality and by having the principals of each school complete a School Data Sheet which listed the seven characteristics of all schools that were a concern of this study.

Selection of the Instruments

Selection of the ESES

The data for the study pertaining to the educational environment as the pupils perceived it were gathered through use of the Elementary School Environment Survey, an instrument developed and copyrighted by Robert L. Sinclair (1968). Sinclair (1969a) later used the instrument to assess the educational climate of elementary schools in Massachusetts.

The Elementary School Environment Survey was adapted from the College and University Environment Scales (CUES) developed by Pace (1965). The ESES consists of statements about elementary schools. These statements about the instruction, curricula, rules and regulations, teachers, pupils, and other features of school life are used to describe the environment as pupils view it. There are statements for each of five variables. The variables are Practicality, Community, Awareness, Propriety, and Scholarship.

There are two forms of the instrument, Form A-Sc and Form B-Sc. Each form is composed of forty statements which the pupil reacts to by marking each statement true if the sentence tells the way things usually are in his school. The pupil is to mark the sentence false if the sentence tells things that do not usually happen in his school. Time required to complete the instrument is approximately twenty minutes.

Creating the ESES

The preliminary instrument, developed by Sinclair (1968), consisted of one hundred forty statements. One hundred twenty-five of the statements, Sinclair adopted from CUES. The other fifteen statements were opposite or similar to screened CUES statements. The statements were complimentary to the definitions of the corresponding environmental variables. The statements were distributed across four forms. A single form consisted of seven statements for each of the five variables.

Sinclair (1968) conducted a preliminary test of the ESES in four schools having different demographic characteristics. Four persons

administering the ESES watched for the reported possible undesirable influences of variance in student responses. The administrators were alerted to such potential influences as administration technique, instruction readability, student attention span, and student anxiety. Results of their observations showed that the ESES was free from undesirable influences.

As a result of the pretest, twenty statements considered potentially valuable for discriminating between schools were selected and then placed in each of four ESES forms along with randomly assigned statements from those remaining. Thus, a single form consisted of eight statements for each of the five environmental variables, or a total of forty statements (Sinclair, 1968).

In correspondence with Robert Sinclair to obtain permission to use the ESES, he stated that the two forms, Form A-Sc and Form B-Sc, are currently being used in elementary schools across the country. Each form consists of forty different statements. By administering each form to one-half of the pupils in each classroom, the five environmental variables have a total of sixteen statements which correspond to its description. This revision has a level of confidence that will allow statements to be made about the nature of the environments of the schools to be assessed.

Content Validity of the ESES

Sinclair's instrument used in this study is an adaptation of the instrument used by Pace (1965) in his studies of college and university environments. Pace, in a rigorous analysis of the psychometric properties of the College and University Environment Scales, found that the

substance or content of the measure is representative of the environment being considered. This suggests that the instrument can be judged to have a high degree of content validity (Sinclair, 1968).

The same environmental dimensions and essentially the same statements employed by Pace's instrument constitute the ESES. Also the findings of the preliminary testing of ESES support the relevance of the relationship between the statements and the measured environmental variables. Therefore the instrument is judged to have adequate content validity (Sinclair, 1968).

Construct Validity of the ESES

Construct validity is concerned with the degree of relationship between a defined construct or theory and measures of other identifiable features. Pace found that the correlations between CUES and other institutional data were supportive of associations one might expect. Sinclair reached the conclusion from such associations that the theory employed in CUES is backed by a good deal of construct validity and therefore, to a limited degree, the ESES also shows construct validity.

School scores on the Halpin-Croft Organizational Climate Questionnaire were correlated with the ESES scores. The construct validity data consisting of Pearson product-moment correlations between ESES scores and Halpin-Croft scores are reported in Table I (page 40). Correlations significant at or beyond the .05 level are underlined (Sinclair, 1968). Sinclair concluded that the results presented only approach confirming the construct validity of the instrument.

TABLE I

CORRELATIONS BETWEEN ESES SCORES AND HALPIN-CROFT ORGANIZATIONAL CLIMATE SCORES*

Halpin-Croft Scores	ESES Scores				
	Practicality	Community	Awareness	Propriety	Scholarship
Open	.21	.35	.04	.02	-.03
Autonomous	.08	.23	.29	.11	.01
Controlled	-.49	-.66	.02	.00	-.13
Familiar	.55	.80	.10	.10	.08
Paternal	.34	.59	-.02	.27	.27
Closed	-.27	-.32	-.09	-.04	.02

N = 16.

(Underlined coefficients are significant at $p < .05$)

*NOTE: Reprinted from "Elementary School Educational Environments: Measurement of Selected Variables of Environmental Press" by Robert L. Sinclair, Ed.D., 1968.

Reliability of the ESES

Because of the low variance in a distribution of scores within a given institution by design of the ESES, it was not possible to estimate reliability for a single institution. It was possible to plot a distribution of scores obtained from different schools. The variance of the distribution of the different schools was computed to arrive at a Kuder-Richardson reliability estimate (Sinclair, 1968). The mean

scores, the standard deviations, and the Kuder-Richardson reliability estimates computed according to Formula 21 are shown in Table II. The reliabilities are uniformly high for Community, Awareness, and Propriety. Practicality and Scholarship have only moderate reliability scores.

TABLE II

MEAN, SIGMA, AND K-R$^{(21)}$ RELIABILITY FOR EACH VARIABLE*

Variable	Mean	Sigma	K-R$^{(21)}$
1. Practicality	24.6	3.0	.53
2. Community	31.5	3.7	.81
3. Awareness	33.6	3.7	.85
4. Propriety	19.8	5.1	.86
5. Scholarship	23.9	3.1	.54

*NOTE: Reprinted from "Elementary School Educational Environments: Measurement of Selected Variables of Environmental Press" by Robert L. Sinclair, Ed.D., 1968.

Intercorrelation of ESES Scores

The relationships among the variables can be shown by the intercorrelations of variable scores, according to Sinclair. The Practicality score has a relatively strong positive relationship of .65 with the

Community score and a low positive relationship of .13 with the Propriety scores. There are moderate relationships between Community and Propriety (.48), Awareness and Propriety (.42), and Propriety and Scholarship (.41). Although all of the variables have positive correlations with each other, only one correlation is significant beyond the .05 level. Thus, the intercorrelation of school scores suggests an over-all pattern or relationships among environmental variables, yet there is still opportunity for divergence on each variable.

Contextual Patterns of Environments Identified by ESES Data

Schools scoring highest and lowest on an ESES variable have certain substantive commonality that represent an environmental pattern. This analysis was accomplished by examining the statements of institutions having standard z score values near or greater than a positive 1.00 for a particular variable and the statements of schools having standard z score values near or less than a negative 1.00 for the same variable.

The findings of contextual patterns for top-scoring institutions indicate that the environmental characteristics were always true of the schools scoring highest on the variables and were seldom true of the schools scoring lowest. Also, it was noted that in all cases the statements describing the characteristics of the environments in top-scoring schools were relevant to the construct of the complimentary variable. In an indirect way, this suggests that the variables indeed measure what they are designed to measure.

School Environment Patterns Across Variables Identified by ESES Data

Sorting out environments common to small clusters of schools by constructing profiles of the schools scoring highest and the schools scoring lowest on each variable made it possible for Sinclair to identify and describe seven distinct patterns in the educational atmosphere. However, he concluded that a sample of only sixteen elementary schools is not sufficient to identify major environmental patterns with much confidence. Sinclair (1969b) describes the environmental patterns as follows:

> First, there is a set of elementary schools concerned with Practicality, somewhat scholarly, and more rebellious than proper. Another group of institutions is also high on Practicality. They differ from the first pattern in that they are typically very warm and accepting and have a higher score on Propriety. A third pattern is characterized by schools that have a strong emphasis on student conformity and politeness but relatively little concern for organization, supervision, and control. The fourth pattern consists of schools scoring high on academic rigor and having very little concern for Practicality. Schools scoring low on Scholarship and Practicality form the fifth pattern. The sixth pattern is characterized by schools that score very low on Awareness and are rebellious. And the seventh pattern is composed of schools that are clearly cold, unaware, and rebellious institutions. These patterns are not complete or all-inclusive. Yet, the educational climates are representative of patterns of many elementary schools across the country.

Construction of the School Data Sheet

In order to fulfill the requirements of this study it was necessary to determine for each school participating in the study: the sex of the principal; whether it was located in a rural or urban setting; if it was designated as an E.S.E.A. Title I school or not; the size of enrollment; the age range which best described the average age of the fifth and sixth grade teachers; if the internal walls were permanent,

movable, or non-existing; and which of five different organizational plans best described the fifth and sixth grade classrooms. It was also necessary to know the number of fifth and sixth grade teachers and fifth and sixth grade pupils for each school. The investigator was concerned that this information be as accurate as possible and at the same time require a minimum amount of time on the part of school officials to submit. It was thus decided to construct the School Data Sheet to serve this function (Appendix N).

Pilot Study

A pilot study was carried out in three elementary schools for the purpose of verifying written instructions to teachers for administering the Educational Schools Environmental Survey. Because the ESES was to be administered by the classroom teachers in the study, it was necessary to develop instructions to supplement the ones included with Sinclair's instrument.

Permission to conduct a pilot study was granted by the research committee of Unified School District 259 in Wichita, Kansas and arrangements were made with the building principals of the three schools involved. The procedures which were anticipated as those to be used in the main study were employed in the pilot study. The instructions to teachers (Appendix O), survey booklets (Appendix P), answer sheets (Appendix Q), along with special instructions for Wichita teachers (Appendix R) were mailed to the schools using the services of the Central Mailing Services of Oklahoma State University.

Allowing two weeks as adequate time for the mailed materials to be received and the ESES administered to the pupils in the pilot

schools, the principal investigator drove to Wichita to conduct interviews with the teachers at each school. The three schools selected for the pilot study differed in characteristics of size of enrollment, socio-economic composition, age range of teachers, and organizational plans.

As a result of the feedback from the fifth and sixth grade teachers interviewed in the preliminary study, the instructions to teachers for administering the Educational School Environmental Survey were completely reworked and minor changes made in both the instructions to pupils and answer sheets. The required time of approximately twenty minutes required to complete the instrument as stated by the author of the ESES was also confirmed.

The major changes made in the instructions to teachers included changing the sequence of information presented, adoptions of a more readable format and consolidation of instructions needed by the teacher to one sheet. As a result of the pilot study improvements were made in instruction to teachers (Appendix L), survey booklet (Appendixes I and J), and answer sheet (Appendix K).

Two changes that were incorporated into the final forms of the materials used resulted from negotiating with Dr. Robert Sinclair to obtain permission to have his copyrighted instrument printed by the Oklahoma State University Printing Service. Sinclair's major concern was controlling the future circulation of the instrument so that he would be able to monitor research using the ESES. Control was insured by having each copy of the ESES numbered and by adding a notice in the teacher's instructions to return all copies of the ESES to the principal investigator with the completed answer sheets.

Dr. Sinclair was most kind in granting permission to have the instrument printed at Oklahoma State University to facilitate the prompt mailing and to save on mailing cost. He also supplied the scoring keys so that the data could be analyzed.

Designing the ESES Booklet

Snelling (1969) devised a personalized approach for the collection of data by questionnaire in the hopes that at least ninety percent of 1,452 recent liberal arts graduates dispersed about the world would respond to his request for information. Based on his review of other studies on questionnaire construction and the improvement of response, Snelling concluded that "Best results were obtained when questionnaires were physically attractive, relatively short, and designed with the respondent clearly in mind." (Snelling, 1969, p. 126)

Using Snelling's recommendation as a guideline, after permission was obtained from Robert Sinclair to reproduce the ESES at Oklahoma State University, this writer went to the Public Information Department for assistance in designing a booklet that was attractive, short, and had the respondents in mind. A decision was made to have an artist design an attractive cover that would appeal to fifth and sixth graders. It was also decided that a high speed printing press would be used for printing the booklet. This made it possible to reduce in size the print, thereby gaining more open space and readability. The number of pages required to reproduce the forty statements was shortened from three mimeographed pages to only one printed page.

The pilot study brought to attention the need to make some changes in the spacing and physical appearance of the last part of Sinclair's

"Instructions to Students." Form Sc-A and Form Sc-B have the same artistic title cover and instructions to students (Appendixes I and J).

Selection of Schools

The selection of elementary schools participating in this study were taken from the Oklahoma Educational Directory issued by Scott Tuxhorn (1970), State Superintendent of Public Instruction, which contains the names of all the cities and villages in Oklahoma employing as many as three teachers, together with the names of the superintendents and school principals along with other information. It was decided that a random sample equaling to twenty percent of all the schools listed in the directory would be drawn. The names of the schools drawn then comprised the list of schools contacted to participate in the study.

The Selection Process

In the selection process, the numerals 1 through 1,160 were matched in sequential order with the names of elementary schools. The schools are listed in alphabetical order by county in the directory. The seventy-seven counties are also arranged in alphabetical order. These numerals were then drawn from a container, under the supervision of committee member Dr. Elsom, until a total of two hundred thirty-two or twenty percent of 1,160 schools had been selected. For example, the first numeral selected was 1,003, corresponding to a school in Tulsa County.

The schools identified by this selection process were then listed in alphabetical order and assigned a code number in sequential order

using the numerals 101 through 332. The code number was used to make it possible for the computer to store information by school and to identify each school's correct mailing address.

Notification of Schools

The administrators of the schools selected were contacted by letter (Appendix A) and invited to participate in the study. A copy of the letter of invitation and other information explaining the study (Appendix B), in addition to being sent to each building principal, were mailed to the superintendents of each school that had their name listed in the educational directory. Both mailings were made at the same time. A cover letter from the Oklahoma Association of Elementary School Principals (Appendix C), endorsing the study, was obtained and accompanied the letter to each administrator. Also enclosed in the mailing was a self-addressed, postage-paid postcard (Appendix D) which was returned by the administrators who agreed to have their schools participate in the study. The card included a place to indicate the number of classrooms of fifth and sixth graders in the school and the total enrollment of these classes.

Upon receipt of a postcard from a school indicating a willingness to participate in the study, the necessary number of the instrument of assessment were mailed to the school. Instructions for each teacher (Appendix L) who administered the instrument in his or her classroom were also included along with self-addressed, postage-paid mailing containers so that the completed ESES answer sheets could be returned to the principal investigator with no additional work being required of the classroom teacher.

Follow-up Letters

The initial letter sent to all school principals and superintendents when applicable was mailed during the first week of March, 1971. At that time it was anticipated that the study would be conducted later in the month. Before the two-week waiting period prior to mailing out a follow-up letter expired, it became necessary to reschedule the study for May. Therefore, the first follow-up letter (Appendix E) was not mailed until the middle of April. If no response was received in twelve days after sending the first follow-up letter, a second follow-up letter was mailed to the schools (Appendix F).

An attempt was made by telephone to reach the principals of schools who had not mailed back a response by the middle of May. In total, one hundred fifty-four schools were mailed survey booklets. Each of these schools had given an affirmative reply to the invitation to participate in the Educational Environments of Elementary Schools in Oklahoma, either by mail or telephone.

Collecting and Reporting the Data

Upon receiving the unscored answer sheets, the investigator contracted to have the raw data transferred to data processing cards by an IBM 1230 optic reader. Although all pupils in a room were given the ESES to remove any anxiety that might be created if only part of the class was asked to react to the instrument, only the responses of pupils who had attended the school for one year or longer were scored and counted in the tabulation of data.

Although children within a given school may differ in what they perceive to be characteristic of an environment, the atmosphere in general can be described by a composite of these beliefs and expressed as a raw score for the school. The data analyzed in this study were expressed as standard score equivalents for the five variable raw scores of the selected elementary schools. The measured diversity of the environment was the main concern of the study. The individual scores were not analyzed, but rather the total quantitative environment was measured.

The results of the ESES were summarized in terms of variable scores for each school. A school's total z scores for practicality, community, awareness, propriety, and scholarship were computed, then converted to percentiles. This information was expressed in profile form so differences across all variables could be considered.

Organization of the Data

Individual schools were grouped together according to population, demographic features, socio-economic composition, sex of principal, age of teachers, organizational plans, and amount of open space facilities in order to undergo the analysis of inspection and interpretation of measured environmental differences and trends to confirm or reject the hypotheses.

Two types of environmental differences were examined. First, descriptions and tests of significance of the environmental differences on individual variables were made. Second, environmental differences existing across all variables were examined.

CHAPTER IV

ANALYSIS AND TREATMENT OF DATA

Introduction

This chapter presents the results of data obtained from investigational procedures described in Chapter III. The data gathered were used for the primary purpose of assessing the educational environments of selected elementary schools in Oklahoma as perceived by the fifth and sixth grade pupils who live in that environment, to determine if there is any significant difference in these schools when grouped together according to the characteristics described in the hypotheses of this study. The hypotheses stated in the null form were given in Chapter I, page 6.

The data were collected through the use of two instruments. One instrument, the School Data Sheet, was constructed by the writer. The major instrument, the Elementary School Environment Survey (ESES), was developed by Dr. Robert L. Sinclair (1968). The data collected by the ESES were tabulated and interpreted from raw scores by the same procedures used by Sinclair in a study to assess the educational climate of elementary schools in Massachusetts (1969a). The rationale, purpose, and description of the ESES were presented in Chapter III. The analysis, treatment, and interpretation of data collected by the School Data Sheet and ESES are unique to this study.

The major portion of this chapter will be devoted to the presentation and analysis of the data as they relate to each of the hypotheses examined. Adhering to common practice, the writer accepted hypotheses which were supported at the .05 level of significance, or beyond. However, for further clarification of results, when a computed value has an associated probability of .01 or beyond, it will be noted.

School Data Sheet

The School Data Sheet was designed to collect seven identification facts about each school in the study for classification purposes. The school principal checked the classification for each of the seven categories which were characteristic of that school and returned the information to the investigator. The School Data Sheets were mailed to all schools who indicated they would participate in the study. Thirty-two schools who returned completed School Data Sheets failed to return their completed ESES answer sheets. The statistical techniques of the chi-square was used to analyze the data gathered on these thirty-two forms to determine if there were any significant differences between the schools who returned their ESES answer sheets and the schools who did not return their ESES answer sheets.

Seven different analyses were made. Only one, that of demographic characteristics, proved to be significant beyond the .01 level of confidence. One additional analysis proved to be significant beyond the .05 level of confidence. That was the analysis made of different organizational plans. There proved to be a significant difference only when the plans of ability grouping, nongraded units, and team teaching were grouped into one cell for the chi-square treatment.

The lack of significant difference provides support that no sample bias exists between the schools in the state who did and did not return completed ESES answer sheets when the analysis of chi-square was applied to the schools in terms of the characteristics of sex of principal, socio-economic composition, size of pupil enrollment, age range of teachers, amount of open space facilities, and to a lesser degree in organizational plans.

Applying the chi-square test to the number of rural and urban schools who did return their completed ESES answer sheets with the number of rural and urban schools who did not return completed ESES answer sheets, a score of 9.03 was obtained. This score is significant beyond the .01 level of confidence. On the basis of this evidence, one should hypothesize that the rural schools who did not return answer sheets are different from the rural schools who did return answer sheets. This information, therefore, makes it illogical to generalize to all rural or urban schools in the state of Oklahoma because of this sample bias.

The data collected for analysis consisted of responses from over 11,000 pupils, coming from three hundred seventy-three classrooms in one hundred ten different schools covering the entire state. This is equivalent to nine and one-half percent of all schools in Oklahoma. Because all of the schools who were invited to participate in the study did not choose to do so or in some cases were prevented from returning the completed answer due to school dismissal for summer recess, the one hundred ten schools does not represent a random sample of all schools in Oklahoma.

Plotting the one hundred ten schools on a map of Oklahoma by county provides a visual indication that the schools are indeed spread throughout the state. The schools in the sample that participated includes schools in forty-nine of the seventy-seven counties. See the map in Appendix T for a geographical distribution of the schools included in the sample.

Description of Responding Schools

Approximately nine-tenths of the schools who returned their ESES answer sheets had male principals. The number of schools returning data who were classified as being urban schools was almost the same as the number of rural schools who returned data. Another near equal distribution existed when a comparison was made between the number of Title I schools and non-Title I schools who returned completed ESES answer sheets. The Title I schools had approximately nine percent more of the total. Almost half of the schools reporting had an enrollment of two hundred to four hundred. The other three size categories shared almost equally in the number of schools found in each classification. Only ten percent of the schools in the study reported that the age range of their fifth and sixth grade teachers was over fifty years. Twenty percent of the schools reported an age range of under thirty years. Almost half of the schools reported their teachers being between thirty-one and forty, and one-fourth of the schools said their teachers were between forty-one and fifty.

Only one school reported as having flexible internal walls, and only one school reported as having no internal walls. Self-contained and departmentalized classrooms account for an equal share of

ninety-two percent of the organizational plans found in existence today among the Oklahoma schools sampled. Ability grouping, nongradedness and team teaching together account for only seven and one-fourth percent of the organizational plans used by the schools in the study. Table III shows the number and percentage of schools found in each classification.

TABLE III

IDENTIFICATION OF SCHOOLS BY THE SEVEN CHARACTERISTICS IMPORTANT TO THE STUDY

Characteristics	Number of Schools	Percentage	Description
Sex of principals	97	88.18	Male
	13	11.82	Female
Demographic features	60	54.55	Urban setting
	50	45.45	Rural setting
Socio-economic composition	61	55.45	Title I school
	49	45.55	Non-Title I school
Size of pupil enrollment	23	20.91	Less than 200
	53	48.18	201 to 400
	17	15.45	401 to 600
	17	15.45	Over 600
Age range of teachers	22	20.00	Under 30 years
	49	44.55	31 to 40 years
	28	25.45	41 to 50 years
	11	10.00	Over 50 years
Internal walls	108	98.16	Permanent
	1	0.92	Movable
	1	0.92	Non-existing
Organizational plans	51	46.36	Self-contained
	51	46.36	Departmentalized
	3	2.73	Ability grouped
	3	2.73	Team teaching
	2	1.82	Non-graded unit

Elementary School Environment Survey

The Elementary School Environment Survey (ESES) was designed to assess the perception of the educational environment of school as the fifth and sixth grade pupils who lived in that environment perceived the environment. Pupils completed one form of the forty item ESES under the direction of the regular classroom teacher. Identical detailed instructions were sent to each teacher administering the ESES to insure uniformity of instructions given. Only completed answer sheets, that had been properly marked by the pupils to indicate if it was Form Sc-A or Form Sc-B, were used to determine the profile for each school.

An individual item analysis was made by computer of each of the eighty different statements found in the two forms of the ESES. If it was determined that sixty-six percent or more of the pupils in a school responded in the same way to a statement then that school was given a score of one in the sub-environment which was representative of that statement. A possible of sixteen points could be registered in each of the five dimensions of the environment. A value of twenty was added to elevate the scores of each sub-environment. Table IV shows the raw score means and standard deviations for the one hundred ten schools participating in the study.

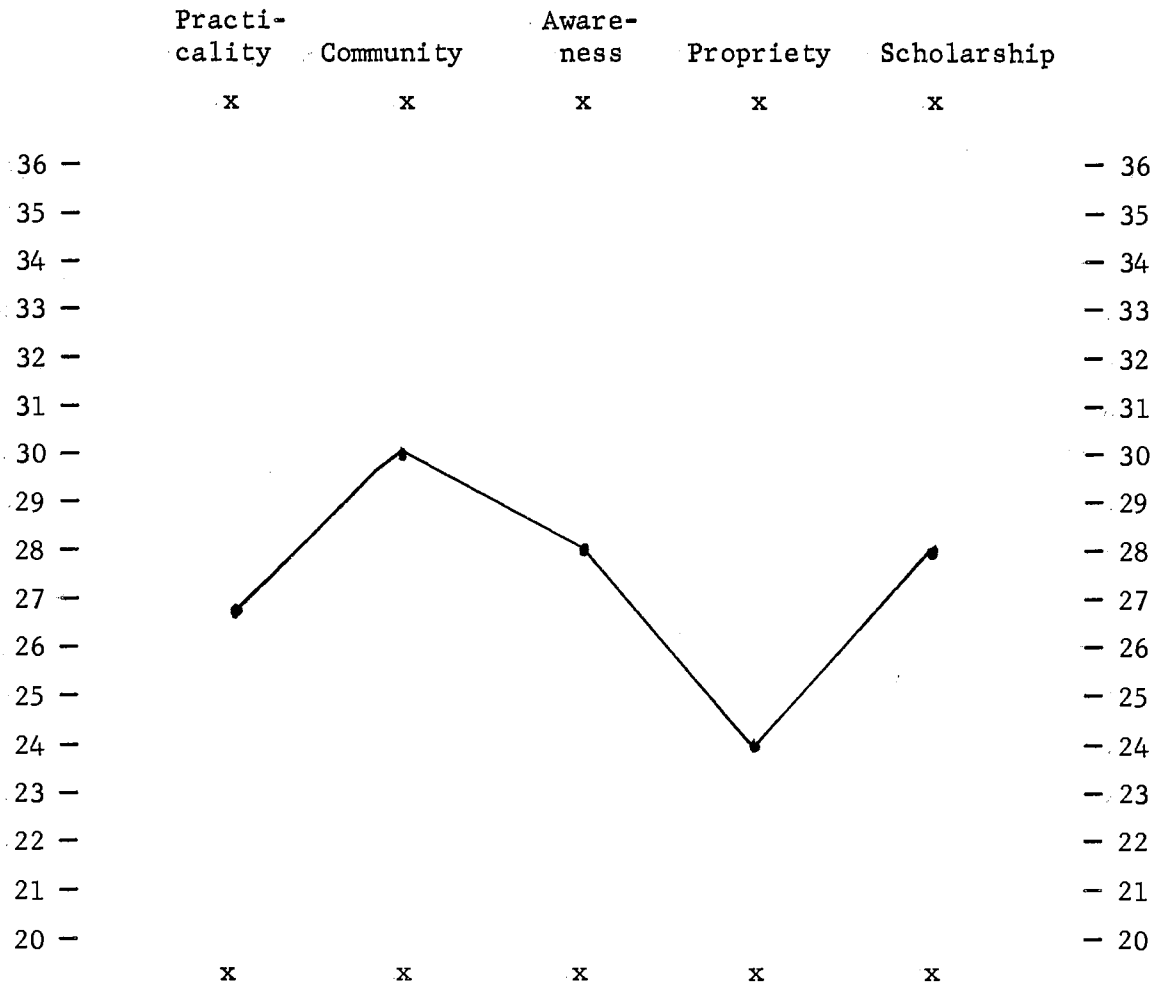
All schools participating in the study can be described with respect to the scores obtained from the ESES answer sheets. The mean scores for each of the five variables of the ESES can also be expressed in another way. Figure 1 shows the profile of all one hundred ten schools included in the study as expressed by the mean score for each of the five variables of the ESES.

TABLE IV

VARIABLE SCORES FOR ALL SCHOOLS

	Raw Scores	
ESES Variables	Mean	Standard Deviation
Practicality	26.5	1.9
Community	28.8	2.5
Awareness	27.9	2.4
Propriety	23.9	2.1
Scholarship	28.0	2.0

N = 110



Mean score	26.5	28.8	27.9	23.9	28.0

N = 110

Figure 1. Elementary School Environment Profile of All Oklahoma Schools Included in Research

Practicality

The mean raw score for all the schools on the Practicality variable was 26.5. The range varied from 4 to 9 points with a maximum score of 33 and a minimum score of 22. Refer to Table V for a complete listing of the means, standard deviations, maximum and minimum scores, and the range of scores for the variable of Practicality in all of the school classifications important to this study.

Community

The mean raw score on the Community variable was 28.8 for all schools. The range varied from 3 to 11 points with the maximum score of 34 and a minimum score of 21. Table VI gives a complete listing of the means, standard deviations, maximum and minimum scores, and the range of scores for the variable of Community for all of the school classifications important to this study.

Awareness

The mean raw score on the Awareness variable for all of the schools was 27.9. The range varied from 4 to 13 points with a maximum score of 31 and a minimum score of 20. Table VII gives a complete listing of the means, standard deviations, maximum and minimum scores, and the range of scores for the variable of Awareness for all of the school classifications important to this study.

TABLE V

MEANS, STANDARD DEVIATIONS, MAXIMUM SCORES, MINIMUM SCORES, AND SCORE RANGES FOR ALL THE SCHOOL CLASSIFICATIONS FOR THE DIMENSION OF PRACTICALITY

Classification	N	Mean	S.D.	Maximum Score	Minimum Score	Range
Title I schools	61	26.31	1.95	30	22	8
Non-Title I schools	49	26.79	1.75	31	22	9
Rural schools	50	26.51	1.96	30	22	8
Urban schools	60	26.53	1.8	31	22	9
Schools having:						
Female principals	13	26.92	1.6	30	24	6
Male principals	97	26.47	1.9	31	22	9
School enrollments of:						
Less than 200	23	26.65	2.18	31	22	9
201-400	53	26.52	1.92	30	22	8
401-600	17	25.99	1.22	28	23	5
More than 600	17	26.88	1.8	30	23	7
Schools having teachers age of:						
Under 30	22	26.31	2.23	30	22	8
31-40	49	26.41	1.68	30	22	8
41-50	28	27.00	1.92	31	22	9
Over 50	11	26.27	1.84	29	22	7
Schools having an organizational plan of:						
Self-contained classroom	51	26.09	1.73	31	22	9
Ability grouping	51	27.66	2.08	30	26	4
Non-graded unit	3	25.00	4.24	28	22	6
Departmentalized classroom	3	26.98	1.83	30	22	8
Team teaching	2	26.00	2.0	28	24	4
Schools having:						
Permanent internal walls	108	26.55	1.86	31	22	9
Movable internal walls	1					
No internal walls	1					
All schools	110	26.5	1.9	31	22	9

TABLE VI

MEANS, STANDARD DEVIATIONS, MAXIMUM SCORES, MINIMUM SCORES, AND SCORE RANGES FOR ALL THE SCHOOL CLASSIFICATIONS FOR THE DIMENSION OF COMMUNITY

Classification	N	Mean	S.D.	Maximum Score	Minimum Score	Range
Title I schools	61	28.52	2.48	33	22	11
Non-Title I schools	49	29.10	2.40	33	23	10
Rural schools	50	28.92	2.53	33	22	11
Urban schools	60	28.66	2.39	33	22	11
Schools having:						
Female principals	13	29.00	2.5	32	26	6
Male principals	97	28.75	2.5	33	22	11
School enrollments of:						
Less than 200	23	28.95	2.9	33	22	11
201-400	53	29.15	2.2	33	22	11
401-600	17	28.12	2.3	32	24	8
More than 600	17	28.05	2.5	31	22	9
Schools having teachers age of:						
Under 30	22	28.68	2.55	32	22	10
31-40	49	28.67	2.54	33	22	11
41-50	28	28.86	2.50	33	24	9
Over 50	11	29.27	1.90	32	26	6
Schools having an organizational plan of:						
Self-contained classroom	51	28.90	2.07	33	22	11
Ability grouping	51	28.66	2.30	30	26	4
Non-graded unit	3	31.50	.70	32	31	1
Departmentalized classroom	3	28.52	2.85	33	22	11
Team teaching	2	29.33	1.52	31	28	3
Schools having:						
Permanent internal walls	108	28.81	2.39	33	22	11
Movable internal walls	1					
No internal walls	1					
All schools	110	28.8		33	22	11

TABLE VII

MEANS, STANDARD DEVIATIONS, MAXIMUM SCORES, MINIMUM SCORES, AND SCORE RANGES FOR ALL THE SCHOOL CLASSIFICATIONS FOR THE DIMENSION OF AWARENESS

Classification	N	Mean	S.D.	Maximum Score	Minimum Score	Range
Title I schools	61	27.64	2.49	32	21	11
Non-Title I schools	49	28.26	2.30	34	23	11
Rural schools	50	27.76	2.67	34	22	12
Urban schools	60	28.05	2.20	33	21	12
Schools having:						
Female principals	13	28.00	2.41	33	24	9
Male principals	97	27.91	2.40	34	21	13
School enrollments of:						
Less than 200	23	27.87	2.80	33	22	11
201-400	53	27.72	2.40	34	21	13
401-600	17	28.52	2.20	33	24	9
More than 600	17	27.99	2.09	32	25	7
Schools having teachers age of:						
Under 30	22	27.04	2.12	29	24	5
31-40	49	28.12	2.17	32	22	10
41-50	28	28.10	3.05	32	25	7
Over 50	11	28.27	2.00	32	26	6
Schools having an organizational plan of:						
Self-contained classroom	51	27.76	2.46	34	22	12
Ability grouping	51	27.66	2.08	30	26	4
Non-graded unit	3	27.50	.70	28	27	1
Departmentalized classroom	3	28.08	2.50	33	21	12
Team teaching	2	28.33	2.08	30	26	4
Schools having:						
Permanent internal walls	108	27.90	2.44	34	21	13
Movable internal walls	1					
No internal walls	1					
All schools	110	27.9		34	21	13

Propriety

The mean raw score on the Propriety variable was 23.9 for all schools. The range varied from 3 to 11 points with a maximum score of 31 and a minimum score of 20. Table VIII gives a complete listing of the means, standard deviations, maximum and minimum scores, and the range of scores for the variable of Propriety for all of the school classifications important to this study.

Scholarship

The mean raw score for all the schools on the Scholarship variable was 28.0. The range varied from 2 to 10 points with a maximum score of 32 and a minimum score of 22. Table IX gives a complete listing of the means, standard deviations, maximum and minimum scores, and the range of scores for the variable of Scholarship for all of the school classifications important to this study.

Testing the Hypotheses

The statistical techniques utilized in analyzing the data obtained by the ESES were the Mann-Whitney U test (Siegel, 1956, page 120) and the Kruskal-Wallis test (Siegel, 1956, page 185). These methods of statistical analysis were appropriate for determining the significant difference, if any, between the seven different school classifications that were important in this investigation.

The Mann-Whitney U test was used for categories that were limited to two dimensions, namely demographic features, socio-economic composition, and sex of school principal. The formula for the Mann-Whitney U test is:

TABLE VIII

MEANS, STANDARD DEVIATIONS, MAXIMUM SCORES, MINIMUM SCORES, AND SCORE RANGES FOR ALL THE SCHOOL CLASSIFICATIONS FOR THE DIMENSION OF PROPRIETY

Classification	N	Mean	S.D.	Maximum Score	Minimum Score	Range
Title I schools	61	23.60	2.02	29	20	9
Non-Title I schools	49	24.35	2.18	31	21	10
Rural schools	50	24.38	2.29	31	20	11
Urban schools	60	33.56	1.90	29	20	9
Schools having:						
Female principals	13	26.92	1.6	30	24	6
Male principals	97	26.47	1.9	31	22	9
School enrollments of:						
Less than 200	23	24.74	2.2	29	21	8
201-400	53	23.96	2.0	31	20	11
401-600	17	23.12	2.1	29	20	9
More than 600	17	23.58	2.12	28	21	7
Schools having teachers age of:						
Under 30	22	23.13	1.52	26	20	6
31-40	49	23.9	1.96	28	20	8
41-50	28	23.96	1.89	28	21	7
Over 50	11	25.27	3.52	31	21	10
Schools having an organizational plan of:						
Self-contained classrooms	51	23.88	2.22	31	21	10
Ability grouping	51	24.00	1.73	26	23	3
Non-graded unit	3	23.50	2.12	25	22	3
Departmentalized classroom	3	24.10	2.10	29	20	9
Team teaching	2	22.33	0.57	23	22	1
Schools having:						
Permanent internal walls	108	23.99	2.12	31	20	11
Movable internal walls	1					
No internal walls	1					
All schools	110	23.9		31	20	11

TABLE IX

MEANS, STANDARD DEVIATIONS, MAXIMUM SCORES, MINIMUM SCORES, AND SCORE RANGES FOR ALL THE SCHOOL CLASSIFICATIONS FOR THE DIMENSION OF SCHOLARSHIP

Classification	N	Mean	S.D.	Maximum Score	Minimum Score	Range
Title I schools	61	29.59	2.12	32	22	10
Non-Title I schools	49	28.51	1.75	32	26	6
Rural schools	50	28.08	2.26	32	22	10
Urban schools	60	27.93	1.79	32	23	9
Schools having:						
Female principals	13	28.00	2.17	32	23	9
Male principals	97	28.00	2.0	32	22	10
School enrollments of:						
Less than 200	23	27.82	2.8	32	22	10
201-400	53	28.15	1.8	32	23	9
401-600	17	27.88	1.8	32	26	6
More than 600	17	27.88	1.3	30	26	4
Schools having teachers age of:						
Under 30	22	27.50	1.34	29	24	5
31-40	49	28.06	2.16	32	22	10
41-50	28	27.86	1.97	32	25	7
Over 50	11	29.09	2.30	32	26	6
Schools having an organizational plan of:						
Self-contained classroom	51	27.96	1.85	32	22	10
Ability grouping	51	28.66	1.15	30	28	2
Non-graded unit	3	28.00	2.83	30	26	4
Departmentalized classroom	3	28.02	2.24	32	23	9
Team teaching	2	27.67	1.52	29	26	3
Schools having:						
Permanent internal walls	108	28.03	2.03	32	22	10
Movable internal walls	1					
No internal walls	1					
All schools	110	28.0	2.0	32	22	10

$$U = n_1 n_2 + \frac{n_1(n_1 + 1)}{2} - R_1$$

where R_1 = sum of the ranks assigned to group whose sample size is n.

The Kruskal-Wallis test was used for categories having more than two dimensions, namely, enrollment size, age of teachers, organizational plans, and the amount of open space facilities. The formula for the Kruskal-Wallis test is:

$$H = \frac{12}{N(N + 1)} \sum_{J=1}^{K} \frac{R_j 2}{n_j} - 3(N + 1)$$

where k = number of samples

n_j = number of cases in jth sample

$N = \sum n_j$, the number of cases in all samples combined

R_j = sum of ranks in jth sample (column)

$\sum_{J=1}^{K}$ directs one to sum over the k samples (columns)

To present the data derived from ESES, tables have been constructed and profiles have been plotted for the mean scores of the sample schools. The data presented in tabular form are shown for the purpose of accepting or rejecting the hypotheses basic to this study. The statistical confidence level pre-selected for rejection of the hypotheses was the .05 confidence level. In the case of the profiles, information is grouped in a way to show differences among all five dimensions of the educational environment for the seven different characteristics important to the study.

Socio-Economic Composition of Schools

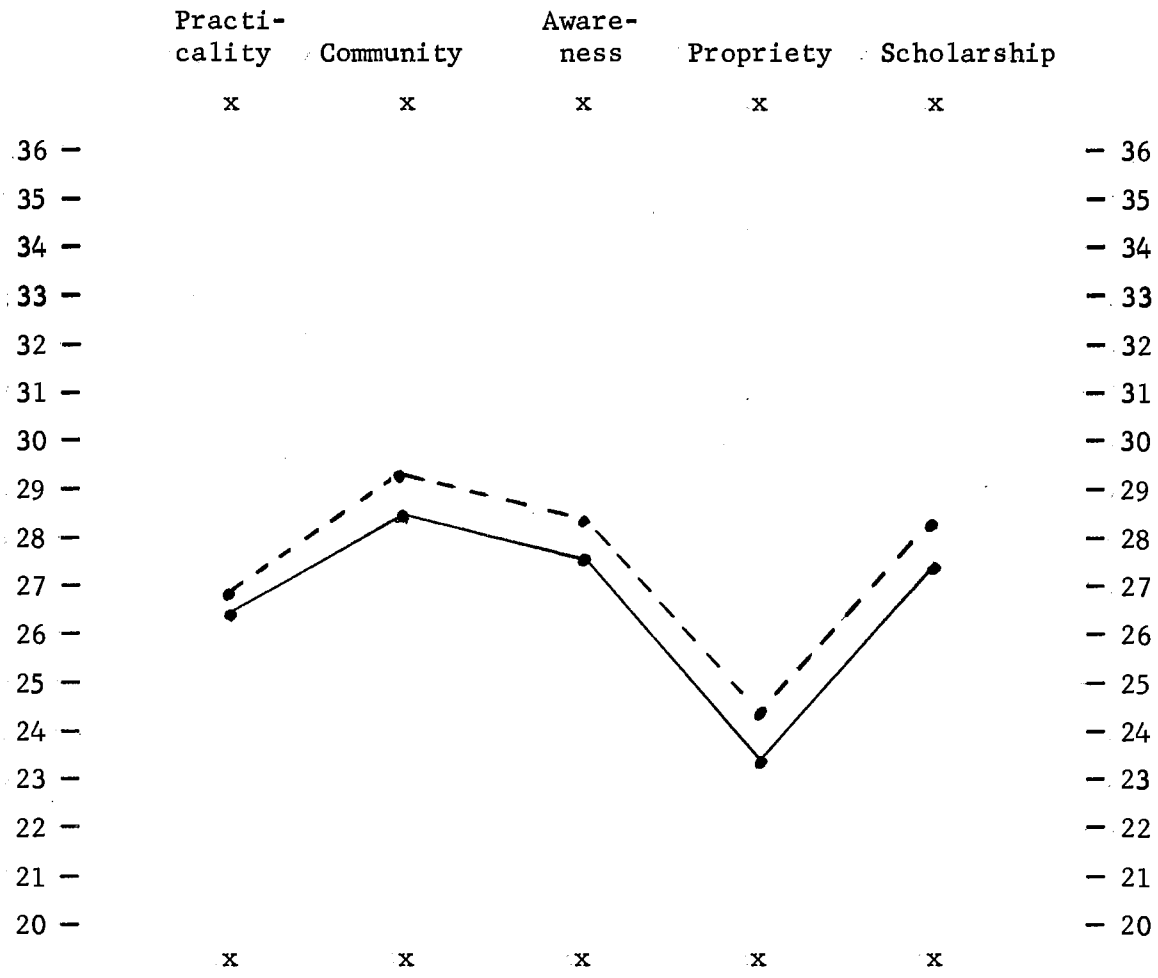
Table X indicates that the results of the Mann-Whitney U test, employed to determine the differences between schools for each of the five variables of the ESES when grouped together as Title I schools and non-Title I schools, provide sufficient evidence of socio-economic class differences in educational environments of elementary schools in the population sampled and that the obtained difference is significant at the .05 level of confidence for the variable of Scholarship. Insufficient evidence of any socio-economic class differences in the educational environments was found for the variables of Practicality, Community, Awareness, and Propriety.

Figure 2 illustrates in profile form the differences and similarities of Title I and non-Title I schools as reflected by the means.

TABLE X

A SUMMARY OF COMPUTED U VALUES RESULTING FROM THE MANN-WHITNEY U TEST RELATIVE TO TITLE I AND NON-TITLE I SCHOOLS

Dimension	U Value	Z Score	Probability	Significant at:
Practicality	1314.00	-1.10204	.27044	N.S.
Community	1298.00	-1.19547	.23190	N.S.
Awareness	1281.00	-1.29632	.19486	N.S.
Propriety	1218.50	-1.68140	.09268	N.S.
Scholarship	1143.50	-2.13737	.03256	.05



Key:
Title I Schools ————————
Non-Title I Schools — — — — — —

	Mean Dimension Scores				
	Practicality	Community	Awareness	Propriety	Scholarship
Title I schools	26.31	28.52	27.64	23.61	27.59
Non-Title I schools	26.79	29.10	28.27	24.34	28.51

Figure 2. Elementary School Environment Profile Relative to the Socio-Economic Composition of Schools

Demographic Features of Schools

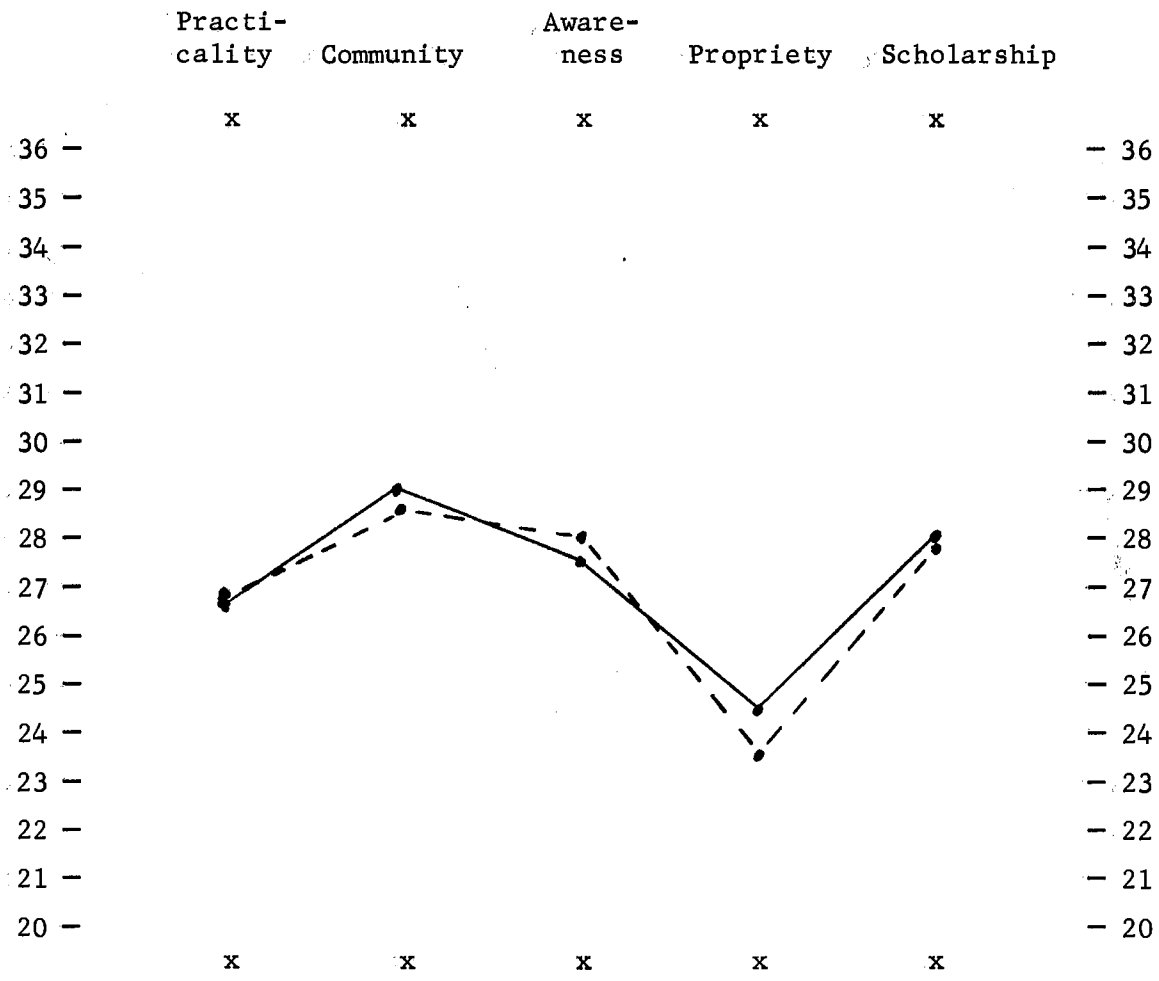
Table XI indicates that the results of the Mann-Whitney U test, employed to determine the differences between schools for each of the five dimensions of the ESES when grouped together as schools located in rural settings and schools located in urban settings, provide sufficient evidence of demographic differences in the educational environments of elementary schools in the population sampled and that the obtained difference is significant at the .05 level of confidence for the variable of Propriety. Insufficient evidence of any demographic differences in the educational environments was found for the variables of Practicality, Community, Awareness, and Scholarship.

Figure 3 illustrates in profile form the differences and similarities of urban and rural schools as reflected by the means.

TABLE XI

A SUMMARY OF COMPUTED U VALUES RESULTING FROM THE MANN-WHITNEY U TEST RELATIVE TO URBAN AND RURAL SCHOOLS

Dimension	U Value	Z Score	Probability	Significant at:
Practicality	1475.00	-0.15236	.87890	N.S.
Community	1425.00	-0.45545	.64878	N.S.
Awareness	1428.00	-0.43637	.66258	N.S.
Propriety	1176.50	-1.96715	.04916	.05
Scholarship	1414.00	-0.52273	.60116	N.S.



	Mean Dimension Scores				
	Practicality	Community	Awareness	Propriety	Scholarship
Rural schools	26.52	28.92	27.76	24.38	28.08
Urban schools	26.53	28.67	28.05	23.57	27.93

Figure 3. Elementary School Environment Profile Relative to the Demographic Features of Schools

Sex of Principal of the Schools

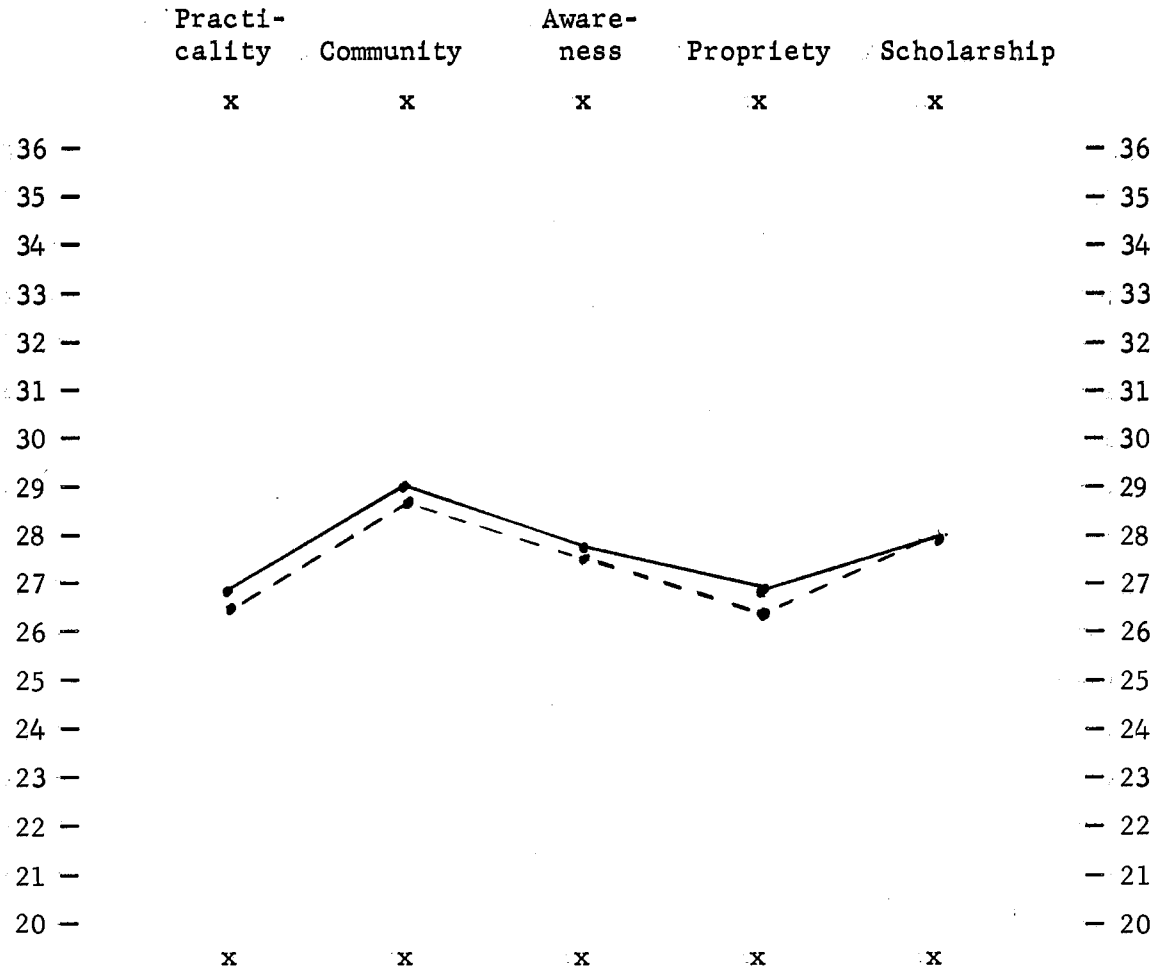
Table XII indicates that the results of the Mann-Whitney U test, employed to determine the differences between schools for each of the five dimensions of the ESES when grouped together as schools with female principals and schools with male principals, provide insufficient evidence of any sex of principal differences in the educational environments of elementary schools in the population sampled for any of the five dimensions of the ESES.

Figure 4 illustrates in profile form the differences and similarities of schools with female principals and schools with male principals as reflected by the means.

TABLE XII

A SUMMARY OF COMPUTED U VALUES RESULTING FROM THE MANN-WHITNEY U TEST RELATIVE TO THE SEX OF PRINCIPAL OF THE SCHOOL

Dimension	U Value	Z Score	Probability	Significant at:
Practicality	552.00	-0.73790	.46058	N.S.
Community	605.50	-0.23416	.81486	N.S.
Awareness	610.00	-0.19163	.84802	N.S.
Propriety	577.00	-0.50179	.61582	N.S.
Scholarship	610.50	-0.18750	.85126	N.S.



Key:
Female Principals ————————
Male Principals — — — — — —

	Mean Dimension Scores				
	Practicality	Community	Awareness	Propriety	Scholarship
Schools with female principals	26.92	29.00	28.00	26.92	28.00
Schools with male principals	26.47	28.75	27.91	26.47	28.00

Figure 4. Elementary School Environment Profile Relative to the Sex of Principals

Enrollment Size of the Schools

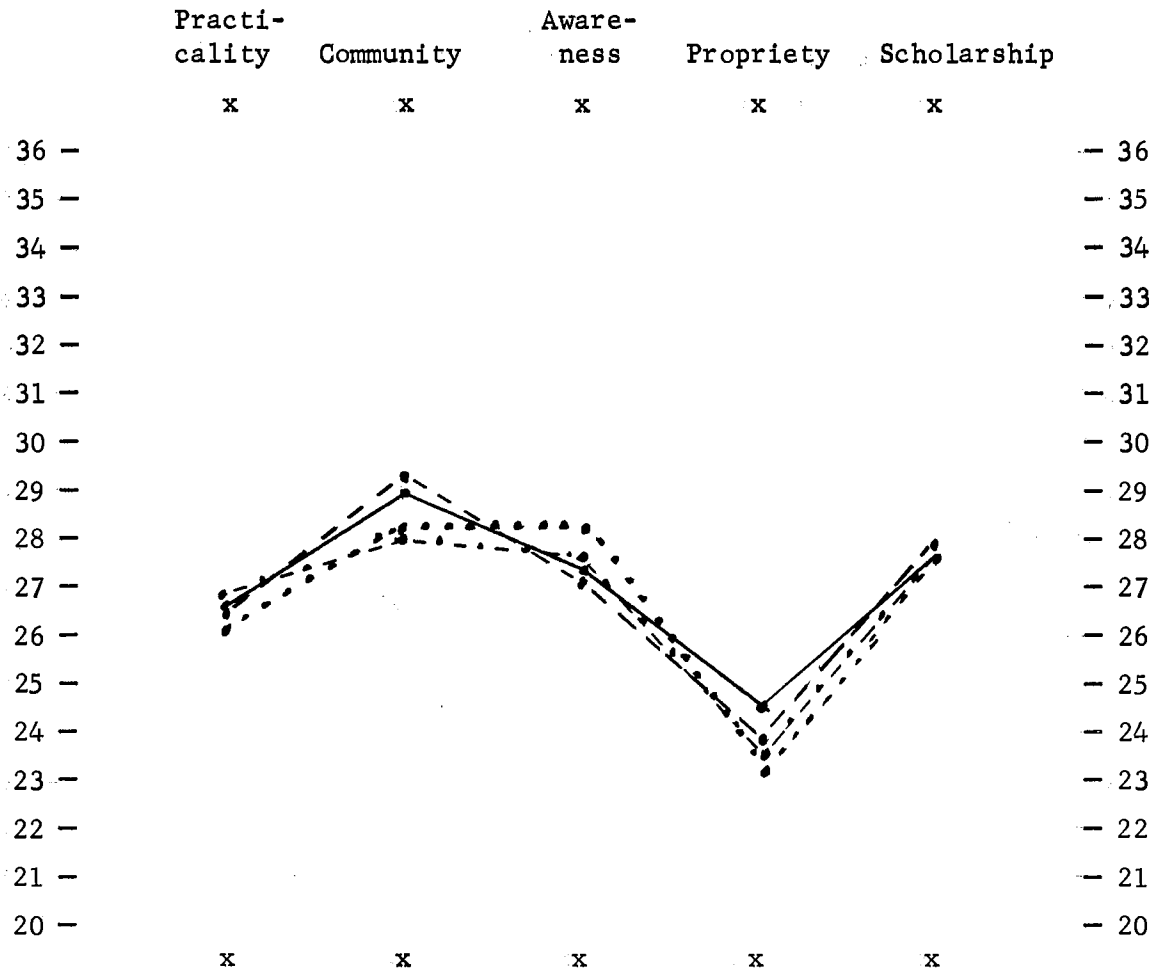
Table XIII indicates that the results of the Kruskal-Wallis test, employed to determine the differences among schools for each of the five dimensions of the ESES when grouped together as schools having enrollments of: under 200, 201-400, 401-600 and over 600, provide evidence of enrollment size differences in the educational environments of elementary schools in the population sampled at the .10 level of confidence for the variable of Propriety. Since the .10 level of confidence is outside the limits of the pre-determined level of confidence that would be accepted as significant in this investigation, there is insufficient evidence of any enrollment size differences in the educational environments for any of the five variables of the ESES.

Figure 5 illustrates in profile form the differences and similarities of schools in the population sampled when grouped together according to enrollment size.

TABLE XIII

A SUMMARY OF COMPUTED H VALUES RESULTING FROM THE KRUSKAL-WALLIS TEST RELATIVE TO THE ENROLLMENT SIZE OF SCHOOLS

Dimension	Average Rank				H Value	Significant
	Under 200 n = 23	201-400 n = 53	401-600 n = 17	Over 600 n = 17	df = 3	at:
Practicality	57.13	56.06	45.06	62.00	2.683	N.S.
Community	58.41	60.01	45.15	47.85	4.112	N.S.
Awareness	54.26	53.62	63.03	55.50	1.188	N.S.
Propriety	67.15	56.75	41.97	49.35	7.019	.10
Scholarship	54.41	58.23	50.97	53.00	0.883	N.S.



Key:
School Enrollments
Less than 200
201 - 400
401 - 600
Over 600

	Mean Dimension Scores				
	Practicality	Community	Awareness	Propriety	Scholarship
Less than 200	26.65	28.95	27.87	24.74	27.82
201 - 400	26.52	29.15	27.72	23.96	28.15
401 - 600	25.99	28.12	28.52	23.12	27.88
Over 600	26.88	28.05	27.99	23.58	27.88

Figure 5. Elementary School Environment Profile Relative to the Enrollment Size of the Schools

Age Range of Teachers

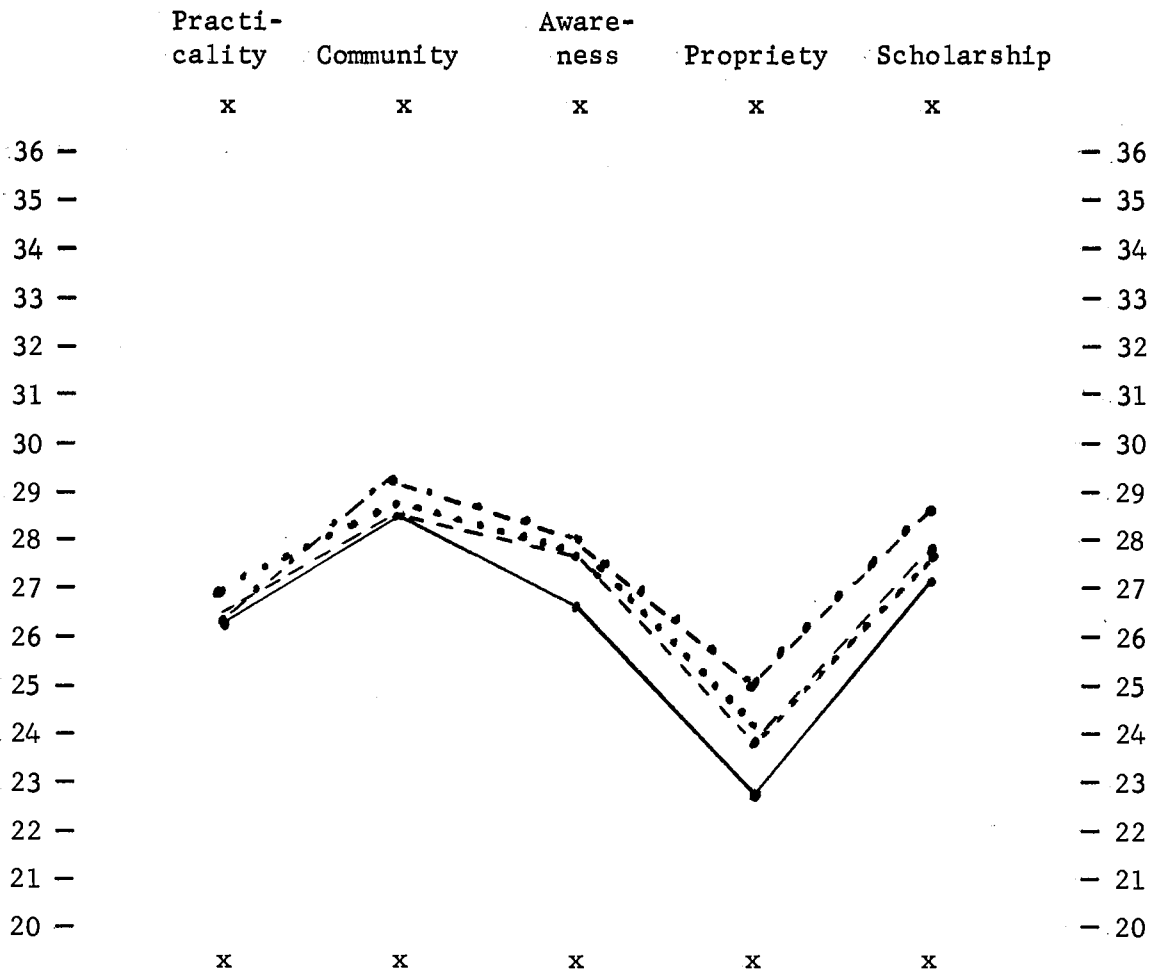
Table XIV indicates that the results of the Kruskal-Wallis test, employed to determine the differences among schools for each of the five dimensions of the ESES when grouped together as schools having the average age range of the fifth and sixth grade teachers as: under 30 years, 31-40 years, 41-50 years, and over 50 years, provide insufficient evidence of any age range of teachers differences in the educational environments of elementary schools in the population sampled for any of the five dimensions of the ESES.

Figure 6 illustrates in profile form the differences and similarities of schools with the schools grouped together according to the average age range of teachers.

TABLE XIV

A SUMMARY OF COMPUTED H VALUES RESULTING FROM THE KRUSKAL-WALLIS TEST RELATIVE TO THE AGE RANGE OF TEACHERS

Dimension	Average Rank				H Value	Significant
	Under 30 n = 22	31-40 n = 49	41-50 n = 28	Over 50 n = 11	df = 3	at:
Practicality	53.45	52.53	63.48	52.50	2.438	N.S.
Community	54.66	54.86	55.55	59.91	0.251	N.S.
Awareness	43.82	59.77	56.13	58.27	3.996	N.S.
Propriety	45.25	57.37	56.63	64.82	3.502	N.S.
Scholarship	47.50	57.88	51.75	70.45	4.573	N.S.



Key:
Age Range of Teachers
Under 30 ————
31 - 40 — — — — —
41 - 50 • • • • • • • •
Over 50 —·—·—·—·—

	Mean Dimension Scores				
	Practicality	Community	Awareness	Propriety	Scholarship
Under 30	26.3	28.7	27.0	23.1	27.5
31 - 40	26.4	28.7	28.1	24.0	28.1
41 - 50	27.0	28.9	28.1	24.0	27.9
Over 50	26.3	29.3	28.3	25.3	29.1

Figure 6. Elementary School Environment Profile For Schools Grouped by Age Range of Teachers

Organizational Plans of the Schools

Table XV indicates that the results of the Kruskal-Wallis test, employed to determine the differences among schools for each of the five dimensions of the ESES when grouped together as schools having organizational plans as: self-contained classrooms, ability grouped classrooms, nongraded classrooms, departmentalized classrooms, and team teaching, provide significant evidence of organizational plan differences in the educational environments of elementary schools in the population sampled for the dimension of Practicality.

Insufficient evidence of any organizational plan differences in the educational environments was found for the variables of Community, Awareness, Propriety, or Scholarship.

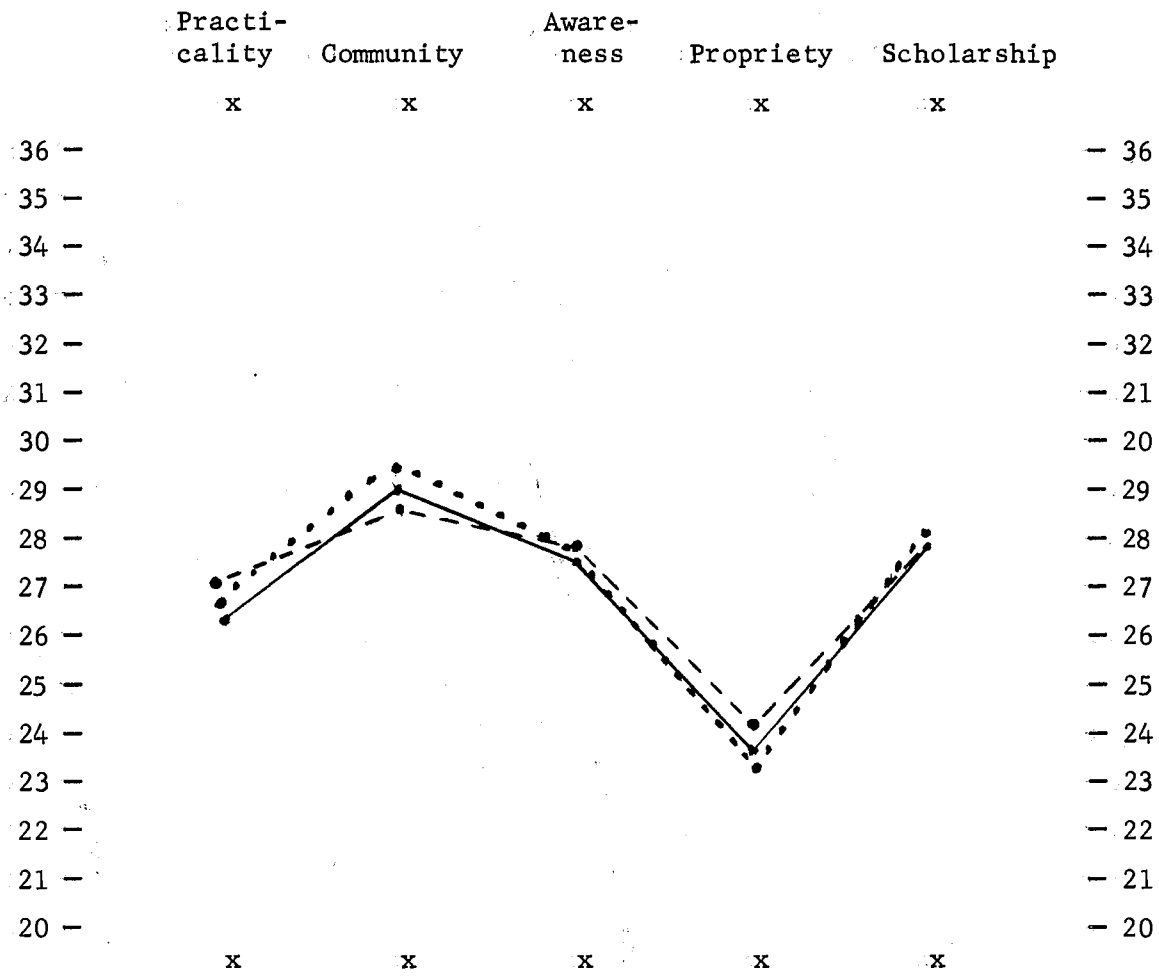
Figure 7 illustrates in profile form the differences and similarities of schools in the population sampled when grouped together according to organizational plans.

TABLE XV

A SUMMARY OF COMPUTED H VALUES RESULTING FROM THE KRUSKAL-WALLIS TEST RELATIVE TO THE ORGANIZATIONAL PLANS OF THE SCHOOLS

Dimension	Average Rank				H Value df = 2	Significant at:
	Self-Contained Classrooms n = 51	Ability Grouped Classrooms / Nongraded Classrooms / Team Teaching n = 8*		Departmentalized Classroom n = 51		
Practicality	47.32	55.25		63.72	6.941	.05
Community	55.01	67.06		54.18	1.177	N.S.
Awareness	53.81	53.75		57.46	0.366	N.S.
Propriety	53.70	45.25		58.91	1.613	N.S.
Scholarship	55.05	57.88		55.58	0.056	N.S.

*Because of the small number of cases in the classifications of Ability Grouped Classrooms, Nongraded Classrooms, and Team Teaching, it was necessary to collapse the three into one cell before the computer could compute a meaningful H value.



Key:
Self-Contained Classrooms ————————
Departmentalized Classrooms — — — — — — —
Others (Ability Grouped, Nongraded, Team Teaching)·····

	Mean Dimension Scores				
	Practicality	Community	Awareness	Propriety	Scholarship
Self-Contained	26.1	28.9	27.8	23.9	28.0
Departmentalized	27.0	28.5	28.1	24.1	28.0
Others	26.4	29.6	27.9	23.3	28.1

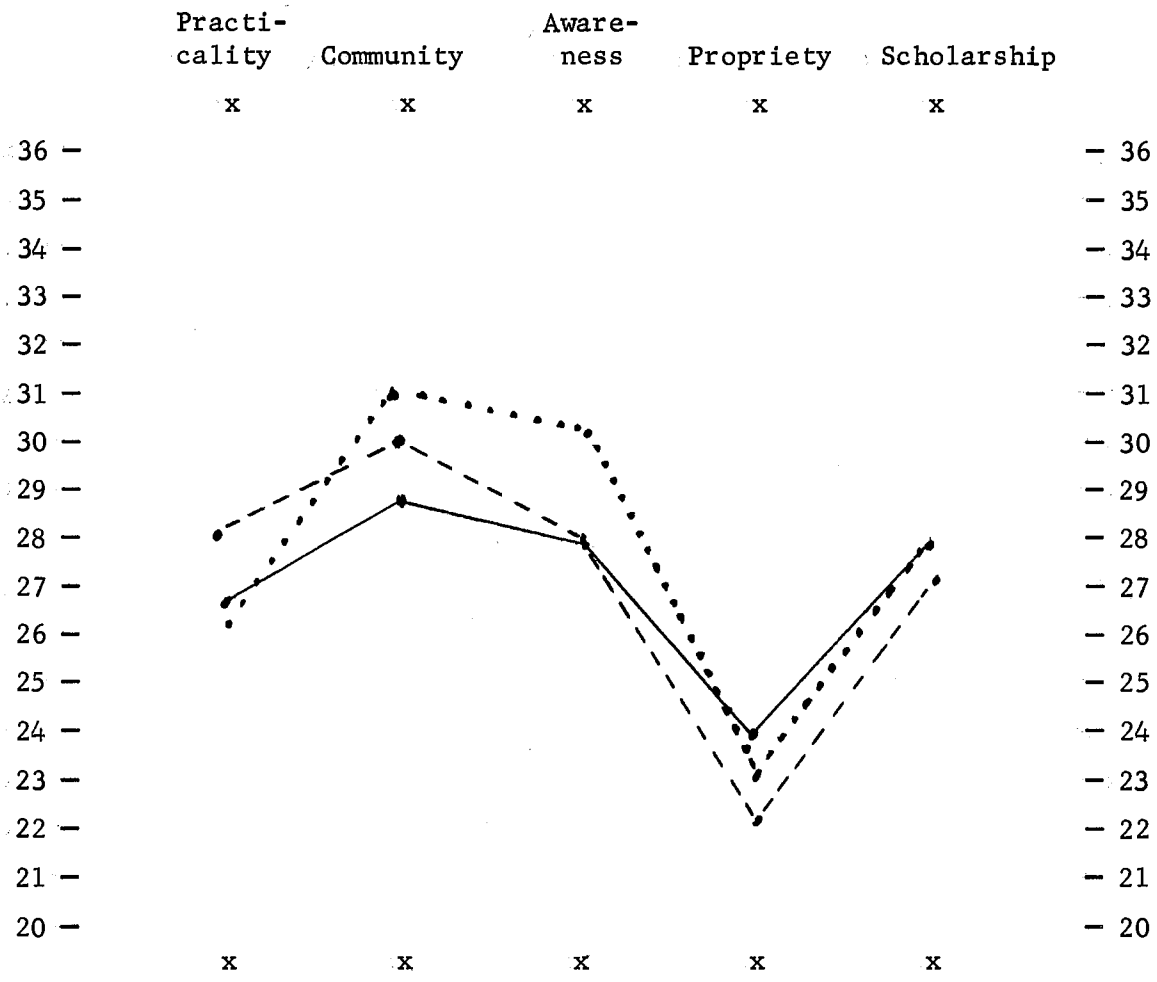
Figure 7. Elementary School Environment Profile Relative to the Organizational Plans of the Schools

Open Space Facilities of the Schools

A school with open space facilities for the purposes of this study was defined as any school with flexible, movable, or adjustable internal walls or any school without internal walls. Out of the one hundred ten schools in the present study's sample, it was found that only one school was identified as having non-existing internal walls and only one school was identified as having movable internal walls. Due to this small number of cases it was thought necessary to drop the question asked in Hypothesis Seven because of inadequate data.

The Kruskal-Wallis test was not employed to determine the differences among schools for each of the five dimensions of the ESES when grouped together as schools having different amounts of open space facilities for instructional purposes.

Figure 8 illustrates in profile form the differences and similarities of schools in the population sampled with non-movable walls and the two individual schools with no internal walls and movable internal walls.



Key:
Schools With Permanent Internal Walls ————————
One School Having Movable Internal Walls – – – – – – –
One School Having No Internal Walls ••••••••••••••••

	Mean Dimension Scores				
	Practicality	Community	Awareness	Propriety	Scholarship
Permanent walls	26.55	28.8	27.9	24	28
Movable walls	28	30	28	22	27
No internal walls	26	31	30	23	28

Figure 8. Elementary School Environment Profile Relative to Open Space Facilities of the Schools

Identifiable School Environment Patterns

An analysis was run by the computer to determine if the educational environment profiles had a tendency to cluster around certain scores, forming identifiable patterns that were characteristically different from the scores of other clusters or groups of schools. Sinclair (1968) in developing the ESES found that the schools included in his investigation had a tendency to fit one of seven patterns. The patterns identified and described by Sinclair (1969b) were determined by constructing profiles of the schools scoring highest and the schools scoring lowest on each variable. Sinclair had concluded that a sample of only sixteen elementary schools is not sufficient to identify major environmental patterns with much confidence.

The investigator anticipated that the sample of one hundred ten elementary schools used in the present study would give more confidence to identifying some or all of the patterns in the educational atmosphere. Examination of the schools scoring highest and the schools scoring lowest on each variable in the present study fails to support any of the patterns of educational climates which Sinclair states "are representative of patterns of many elementary schools across the country." (Sinclair, 1969b)

Before a school was judged to be one of the highest or lowest scoring schools on a variable, the school had to have a z score of +1 or greater to be counted as a highest scoring school and a z score of -1 or greater to be counted as a lowest scoring school.

One pattern that appears to be almost universal with the sample of schools used in the present study is the tendency for the dimension of Propriety to have a lower score than any other dimension. This trend

is illustrated clearly in the profile plotted by using the mean scores of all one hundred ten schools.

Summary

Chapter IV has presented the procedural treatment and the statistical analysis of data collected through the use of the School Data Sheet and Sinclair's (1968) Elementary School Environment Survey (ESES). The data were presented in both tabular and profile format with appropriate discussion concerning the statistical test of significance and the results obtained. Statistical confidence was specified at the .05 confidence level, and the null hypotheses were put to the test. Hypotheses Three, Four, Five, and Seven were tenable. Hypotheses One, Two, and Six were rejected.

Examination of the schools scoring highest and the schools scoring lowest on each variable failed to support any of the patterns of educational climates which Sinclair stated were representative of many elementary schools in the nation.

Chapter V will present a summary, findings, conclusions, and recommendations for further research in areas related to this study.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

This study was designed to assess the educational environments of elementary schools in Oklahoma as fifth and sixth grade pupils perceive it and to determine whether or not particular characteristics of the schools had any relation to the way the pupils perceived the educational environment.

Another purpose of this study was to provide information relevant to the educational environments of elementary schools to educators who are concerned with the reality existing in their schools and who desire to reform current educational programs, if reforms are needed.

Summary

A review of related literature seemed to reveal some general impressions of factors related to the problem:

1. There is an absence of research directly concerned with the educational environment as perceived by elementary school pupils.

2. The range of environments goes from the most immediate social interactions to the more remote cultural and institutional forces.

3. Individual personal needs must be met by the child's environment before directed learning can take place.

4. The characteristics of size, organizational plans, socio-economic factors, and demographic features are among the factors that

can make a difference in the educational climate or environment that exists in schools.

The data would indicate that it is possible to describe the educational environments of schools as perceived by pupils and to identify characteristics of schools, therefore, giving merit to an investigation of this structure. The two instruments used in the study were the Elementary School Environment Survey (ESES) developed by Sinclair (1968) and the School Data Sheet. A pilot study was conducted for the purpose of verifying instructions to teachers and to confirm the completeness of all procedures of the study.

The location and selection of participating schools was based upon statistical information secured from the Oklahoma State Department of Education. All sampled schools were classified according to population, demographic features, socio-economic composition, sex of principal, age range of teachers, organizational plans, and amount of open space facilities.

The responses of the pupils to the ESES were analyzed to determine their perceptions of the five dimensions of Practicality, Community, Awareness, Propriety, and Scholarship.

The major objectives of the study were to test the following null hypotheses:

1. Educational environments of elementary schools located in low socio-economic class communities do not differ significantly from elementary schools located in middle class or higher socio-economic communities.

2. Educational environments of elementary schools located in urban settings do not differ significantly from elementary schools

located in rural settings.

3. Educational environments of elementary schools having a female principal do not differ significantly from elementary schools having a male principal.

4. Educational environments of elementary schools do not differ significantly among elementary schools with enrollments under two hundred, between two hundred one and four hundred pupils, four hundred one and six hundred, and over six hundred pupils.

5. Educational environments of elementary schools do not differ significantly among elementary schools with the age range of fifth and sixth grade teachers under thirty years, between thirty and forty years, between forty-one and fifty years, and over fifty years.

6. Educational environments of elementary schools do not differ significantly among elementary schools employing self-contained classrooms, ability grouped classrooms, nongraded classrooms, departmentalized classrooms, and team teaching.

7. Educational environments of elementary schools with nonmovable internal walls do not differ significantly from elementary schools with open space facilities for instructional purposes.

The data were analyzed through the use of the Mann-Whitney U test, Kruskal-Wallis one-way analysis of variance, and Chi-Square. Significance was established at the 0.05 level of confidence.

Findings

The findings of this investigation considered to be most important and of significant value were the following:

1. Hypothesis One was rejected. There was a significant difference between the educational environments of the schools sampled for this investigation that were located in low socio-economic class communities and the schools sampled that were located in middle class or higher socio-economic communities.

2. The significant difference between the educational environments of schools located in low socio-economic class settings and schools located in middle class or higher socio-economic settings was identified as existing in the educational environment dimension of Scholarship with the Title I schools having the lower score.

3. Hypothesis Two was rejected. There was a significant difference between the educational environments of the schools sampled for this investigation that were located in urban settings and the schools sampled that were located in rural settings.

4. The significant difference between the educational environments of schools located in rural settings and schools located in urban settings was identified as existing in the educational environment dimension of Propriety with the urban schools having the lower score.

5. Hypothesis Three was not rejected and thus was tenable. Hypothesis Three stated: Educational environments of elementary schools having a female principal do not differ significantly from elementary schools having a male principal.

6. Hypothesis Four was not rejected and thus was tenable. Hypothesis Four stated: Educational environments of elementary schools do not differ significantly among elementary schools with enrollments under two hundred, between two hundred one and four hundred pupils, four hundred one and six hundred, and over six hundred pupils.

7. Hypothesis Five was not rejected and thus was tenable. Hypothesis Five stated: Educational environments of elementary schools do not differ significantly among elementary schools with the age range of fifth and sixth grade teachers under thirty years, between thirty-one and forty years, between forty-one and fifty years, and over fifty years.

8. Hypothesis Six was rejected. There was a significant difference among the educational environments of the schools sampled for this investigation that employed self-contained classrooms, ability grouped classrooms, nongraded classrooms, departmentalized classrooms, and team teaching.

9. The significant difference among the educational environments of schools grouped together as having organizational plans of self-contained classrooms; departmentalized classrooms; and ability grouping, team teaching, or nongraded units; was identified as existing in the educational environment dimension of Practicality with the schools having self-contained classrooms having the lower score.

10. Hypothesis Seven cannot be answered because of insufficient data. Hypothesis Seven stated: Educational environments of elementary schools with non-movable internal walls do not differ significantly from elementary schools with open facilities for instructional purposes.

11. Eighty-eight percent of the 110 school sample had male principals and only 12 per cent had female principals.

12. More than fifty-four per cent of the 110 school sample were located in an urban setting. The remaining forty-five per cent were rural schools.

13. More than fifty-five per cent of the 110 school sample identified themselves as Title I schools. The other forty-five per cent identified themselves as non-Title I schools.

14. Almost one-half of the schools (48 per cent) of the schools in the sample had a pupil population of 201 - 400. Twenty-one per cent of the schools had an enrollment of less than 200 pupils. Fifteen and one-half per cent of the schools had a pupil population of 401 - 600. Another 15.5 per cent of the schools had more than 600 pupils.

15. Twenty per cent of the schools in the sample had fifth and sixth grade teachers with an age range of 30 years or less. Close to half of the schools (44.55 per cent) have an age range for fifth and sixth grade teachers of 31 - 40 years. One-fourth of the schools had teachers with an age range of 41 - 50 years. The remaining schools (10 per cent) had fifth and sixth grade teachers with an age range of over fifty years.

16. In practically all cases, Oklahoma schools had permanent internal walls. Only one school out of the sample of 110 schools was identified as having no internal walls. One other school was the only one to be classified as having flexible or movable internal walls.

17. The sampled elementary schools were classified into five different organizational plans. The plans of self-contained classroom and departmentalized classroom each account for 46.36 per cent, or over 92 per cent of the 110 schools. There were three schools or less than 3 per cent each of the schools who were functioning under the plans of ability grouping and team teaching. Only two schools were identified as being nongraded units.

18. Based on Chi-Square statistical analysis, the difference between the urban and rural schools who returned their completed ESES answer sheets and the urban and rural schools who did not return their answer sheets is significant beyond the .01 level of confidence.

19. Based on Chi-Square statistical analysis, the difference among the organizational plans of self-contained classrooms, departmentzlied classroom, and the other three organizational plans of ability grouping, team teaching, and nongraded classroom, who returned their completed ESES answer sheets and the schools in each of these three groups who did not return their answer sheets is significant beyond the .05 level of confidence.

20. Should a school in Oklahoma be selected at random to visit the odds are overwhelming that the building would have internal walls and a male principal. There is a 50-50 chance that the size of the enrollment would be between 201 and 400. The age range most characteristic of the teachers would be between 31 and 40 years of age. The odds are about even on picking a rural school or an urban school.

Conclusions

The following conclusions have been drawn from the findings of this study:

1. Schools located in middle or high socio-economic class settings and designated as non-Title I schools have a significantly more academic, scholarly environment. The emphasis is upon competitively high academic achievement and a serious interest in scholarship. Intellectual speculation, and interest in ideas as ideas, knowledge for its own sake, and intellectual discipline are all characteristic of the

environment to a significantly greater degree than for Title I schools of the study.

2. Rural schools are significantly more polite and considerate than urban schools. Group standards of decorum are more important to rural schools. Pupils in urban schools, on the other hand, are more demonstrative, assertive, rebellious, risk-taking, and display inconsiderate behavior to a significantly greater degree than do pupils in rural schools.

3. Self-contained classrooms, when compared with departmentalized classrooms and a group of classrooms that are either nongraded, ability grouped, or part of a team teaching unit, are significantly less characterized by order and supervision in both administration and classroom instruction. Procedures, personal status, and practical benefits are less important to the self-contained classrooms than they are to the other types of classrooms. Status is gained by knowing the right people, being in the right groups, and doing what is expected is more important to a significantly greater degree for the other classrooms than it is for the self-contained classroom.

4. The difference between the educational environment profile of schools with female principals and the profile of schools with male principals is not significantly different even though the schools with female principals tend to have a higher value for each dimension except Scholarship.

5. The difference among the education environment profiles of schools when grouped together by population size is not significantly different.

6. While the educational environments of elementary schools do not differ significantly among elementary schools with the age range of fifth and sixth grade teachers, the teachers in the present sample of schools whose age range is over fifty, do teach pupils who tend to score higher on the dimensions of the educational environments.

7. Schools with flexible, movable, or adjustable internal walls, or schools without internal walls are almost non-existing in the state of Oklahoma.

8. The ratio of male-female elementary principals is disproportionate to the male-female ratio for all personnel in the field of elementary education.

9. The conclusions reached about the educational environments of the rural school included in the present investigation cannot be said to be representative of all other rural schools in the state of Oklahoma.

10. The conclusions reached about the educational environments of the schools included in the present investigation when grouped together according to different organizational plans cannot be said to be representative of all other schools in the state of Oklahoma.

11. Elementary schools do have different educational environments.

12. School educational environments as perceived by the pupils who make up that environment can be measured.

13. The elementary schools of Oklahoma can be described in terms of unique educational environments by the ESES.

14. The seven patterns of educational environments identified by Robert Sinclair (1968) as existing in elementary schools of Massachusetts appear not to exist in the elementary schools of Oklahoma.

Recommendations

In light of the related literature and the results of this study the following recommendations are suggested.

1. Low socio-economic school settings should be kept to a minimum by some administrative scheme if high scholarship is valued.

2. Pre-service and in-service training programs for teachers should acknowledge that the nature of children attending urban schools is to place a lower value on the educational environment dimension of Propriety than children attending rural schools.

3. Educators need to consider the self-contained classroom as an alternative over other organizational plans if a high value on the Practicality dimension is not desirable.

4. More decisions regarding children's learning should be based on the assumption that for pupils their perception is the reality of the situation.

5. Teacher education, both pre-service and in-service, needs to emphasize how the nature of learning is related to educational environments.

Recommendations for Further Study

This study, while being a descriptive study by design, was also an exploratory study and as such raised as many questions as it answered. A study of this nature can identify general characteristics of schools, specific profiles for individual schools, and isolate and make visible major areas of needed research. At the same time this sort of study can identify areas of a problem which are probably not significant and would not lead to further productive examination.

The validity of the results and conclusions of this study should be substantiated through similar additional investigations and through a concentration on certain important variables affecting educational environments of elementary schools, especially as assessed through the perceptions of the pupils who live in the educational environments. In this light then, the following comments and recommendations for future study seem pertinent and important:

1. Replicate the present study in another state.

2. Replicate the present study to all of the schools in a large school system.

3. Further research using the ESES to compare the educational environments to the personality patterns, needs, values, and attitudes of the classroom teacher.

4. Further research using the ESES designed to determine what educational programs lead to the type and intensity of environment valued as desirable.

5. Some investigations should be made to determine if a major change in environments will result in corresponding changes in pupil characteristics.

6. Further research should attempt to discover if the assessment of educational environments could be obtained from pupils prior to fifth grade.

7. Attempts should be made to determine if different dimensions or variables of the educational environment other than the five described by the ESES can be identified.

8. Further research should attempt to confirm or refute the seven educational environment patterns introduced by Robert Sinclair (1968).

9. An attempt should be made to seek out a larger sample of open space facilities schools in Oklahoma for the purpose of assessing the educational environments of such schools.

10. Further research similar to the present study might concentrate on other characteristics than the present ones.

11. Other studies of educational environments, similar to the one described herein, should analyze in more detail the interactions between dimensions.

12. A follow-up study of the present research should be made to determine if minimal changes, excluding the pupils, would make a significant difference in the schools' educational environment profiles.

Theoretical Considerations

The data analyzed in this study were gathered by asking fifth and sixth grade pupils how they perceived their educational environment. The instrument used identified five dimensions. When the schools, attended by the pupils, were grouped together along the seven traditional independent variables used in the present study for the purpose of identifying significant differences in the way pupils perceive schools, there were only three significant differences found out of a possible thirty-five. An initial conclusion very easily could be--schools are all nearly the same. Another initial conclusion reached may be that all children perceive school almost the same regardless of the characteristics of their school.

An analysis of why these things seem to be so may lead some to say that the wrong questions were asked of the pupils. Others may say the questions are the right ones, implying that pupils in the state of

Oklahoma are receiving "equal" education because their educational environment profiles are near equal.

A more astute conclusion is that the wrong variables were used to identify the real differences that professional educators intuitively know exist in different schools. Literature reviewed for the present research, more than the results of this study, suggests the following.

1. Children should be listened to when seeking information about the nature of the school which they attend.

2. More attention needs to be given to all aspects of a child's environment.

3. Educational planning should take into consideration how children interact with their environment.

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APPENDIX A

INVITATION TO PARTICIPATE LETTER

OKLAHOMA STATE UNIVERSITY • STILLWATER

Research Foundation
FRontier 2-6211, Ext. 271

74075

The April 1970 issue of the National Elementary School Principal contained an article by Robert L. Sinclair titled "Elementary School Educational Environments: Toward Schools That Are Responsive To Students." This article brought into focus the need to assess the educational environments of elementary schools in Oklahoma to provide information to educators who are concerned with the reality existing in elementary schools.

Information about the educational atmosphere of your elementary school will make it possible for you to determine if current programs are resulting in the type and the intensity of environment originally intended.

You may receive this information by accepting this invitation to participate in a state-wide study of Educational Environments of Elementary Schools in Oklahoma. This study was given the full support and cooperation of the Oklahoma Association of Elementary School Principals at their Winter Conference in January.

While the schools participating in the study will be provided with a profile of their educational environment at the completion of the study, individual schools will not be identified in the study. Rather, schools with common characteristics will be grouped together to determine whether schools with differing characteristics differ in their educational environments.

Participation in the study will require only that each teacher of grades five and six administer a 40-item, true-false questionnaire with a response time of approximately 20 minutes to all of the pupils in his or her class. No data from pupils' permanent records will be requested. Seven basic identification facts will be needed from each school participating.

Enclosed is more detailed information about the Educational Environments of Elementary Schools in Oklahoma study and a post card. Returning the post card will indicate a willingness to participate in the study. Instructions for each teacher and the necessary number of instruments and answer sheets will be mailed to the school during the second week of March.

Thank you for your cooperation.

Sincerely,

Donovan Moore

Donoven Moore

APPENDIX B

EDUCATIONAL ENVIRONMENTS OF ELEMENTARY SCHOOLS IN OKLAHOMA FACT SHEET

EDUCATIONAL ENVIRONMENTS OF ELEMENTARY SCHOOLS IN OKLAHOMA

Purpose of the Study

The purpose of the study is to assess the educational environments of selected elementary schools in Oklahoma to provide information to educators who are concerned with the reality existing in elementary schools and desire to reform current educational programs, if reforms are needed.

Problem

The problem is to identify the educational environment of Oklahoma elementary schools as perceived by pupils who attend those schools, and to determine whether schools with differing characteristics differ in their educational environments.

Subjects

The subjects for the study will be the fifth- and sixth-grade pupils of schools selected by a 20 percent randomization of all elementary pupils in Oklahoma.

Instrument

The instrument to be used in the study will be the Elementary School Environment Survey (ESES), a 40-item, true-false questionnaire with a response time of approximately 20 minutes, copyrighted by Robert L. Sinclair in 1969. The ESES consists of statements about elementary schools which are used to describe the environment as pupils view it.

The five dimensions of the educational environment measured are:

Practicality - Procedures, personal status, and practical benefits are important. Status is gained by knowing the right people, being in the right groups, and doing what is expected.

Community - A friendly, cohesive, group-oriented school life is characteristic. The environment is supportive and sympathetic.

Awareness - There is an emphasis upon self-understanding, reflectiveness, and identity. There is a wide range of opportunities for creative and appreciative relationships to the arts. A concern about events around the world, the welfare of mankind, and the present and future condition of man is evident.

Propriety - The environment is polite and considerate. Caution and thoughtfulness are evident. There is an absence of demonstrative, assertive, rebellious, risk-taking, inconsiderate behavior.

Scholarship - An academic, scholarly environment with the emphasis upon competitively high academic achievement. Intellectual speculation, and interest in ideas as ideas, knowledge for its own sake, and intellectual discipline are characteristic of the environment.

Method of Data Collection

Upon receiving a postcard from a school indicating a willingness to participate in the study, the necessary number of the instrument of assessment will be mailed to the school. Instructions for each teacher who will administer the instrument in his or her classroom will also be included. Self-addressed, postage-paid mailing containers will be included with the instructions to each teacher so the completed answer sheets can be returned to the investigator with no additional work being required of the classroom teacher.

Statistical Treatment of Data

Only the responses of pupils who have attended the school for a year or longer will be counted in the tabulation of data. The individual scores will not be analyzed, but rather the total quantitative environment measure will be summarized in terms of variable scores for each school. The information will be expressed in profile form so differences across all five variables can be considered.

Individual schools will be grouped together according to population, demographic features, socio-economic composition, sex of principal, age of teachers, organizational plans, and amount of open space facilities to undergo the analysis of inspection and interpretation of measured environmental differences and trends to confirm or reject the hypotheses.

The appropriate statistical analysis for a descriptive study will be made of the data. All findings of the investigation will be made available to the participating schools.

Principal Investigator

The study will be conducted by Donovan Moore as partial fulfillment of the requirements of the Doctor of Education degree under the direction of Dr. Russell L. Dobson, Associate Professor of Education, Oklahoma State University.

APPENDIX C

OKLAHOMA ASSOCIATION OF ELEMENTARY SCHOOL PRINCIPALS' LETTER OF ENDORSEMENT

Oklahoma Association of Elementary School Principals
Oklahoma Education Association

January 29, 1971

Dear Fellow Principal:

On January 15, 1971, the executive committee of the Elementary School Principals gave its endorsement to a study being conducted by Mr. Donovan Moore, a graduate student attending Oklahoma State University.

The study is titled "Educational Environments of Elementary Schools in Oklahoma". We feel that it is a very important study and we would like to encourage you to participata since your school has been selected as one to be included in the study.

The purpose of the study is to assess the educational environments of the selected elementary schools in Oklahoma. Since we are very much interested in improving the educational program of the elementary schools of Oklahoma, we hope that you will cooperate in order that the study will be as accurate as possible.

Thank you for your cooperation in this important study.

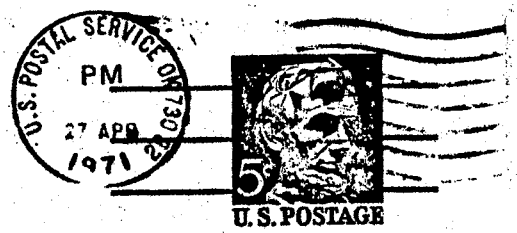
Sincerely,

Emmett Hudgins

Emmett Hudgins
President, O.A.E.S.P.

APPENDIX D

PARTICIPATION ACCEPTANCE POST CARD



DONOVAN MOORE
OKLAHOMA STATE UNIVERSITY
87-5, S. UNIV. PLACE
STILLWATER, OKLAHOMA 74074

Donovan Moore:

I would like for _____ School to be included in the Educational Environments of Elementary Schools in Oklahoma study.

I understand that no identification or comparison will be made of individual schools participating in the study.

_____
(signature of principal)

School Code # ___ ___ ___*

*each school in the study has been assigned a number to make it possible for the computer to store information by school. It also identifies the school's correct mailing address.

APPENDIX E

FOLLOW-UP INVITATION TO PARTICIPATE LETTER

OKLAHOMA STATE UNIVERSITY • STILLWATER

Research Foundation
FRontier 2-4211, Ext. 271

74075

Educational Environments of
Elementary Schools in Oklahoma
Oklahoma State University
Stillwater, Oklahoma 74074
April 14, 1971

Dear fellow principal,

Some time ago information about the Educational Environments of Elementary Schools in Oklahoma state-wide study was sent to you. It was my thought that principals would participate in the study to gain information about the reality existing in elementary schools.

The study originally scheduled for March has been postponed until May in anticipation of a revised edition of the Elementary School Educational Survey (ESES) being available from the author, Dr. Robert Sinclair.

I realize you and your teachers are busy and were it not for the fact that this "is a very important study" to the elementary schools of Oklahoma as stated by O.A.E.S.P. President Emmett Hudgins, I would hesitate to send you this reminder.

Participation in the study will require only that each teacher of grades five and six administer a 80-item, true-false questionnaire with a response time of approximately 20 minutes to all of the pupils in his or her class. No data from pupils' permanent records will be requested. Seven basic identification facts will be needed from each school participating.

Please return the enclosed post card to indicate that your school will participate in the study. Instructions for each teacher and the necessary number of instruments and answer sheets will be mailed to the school during the first week of May.

Thank you for your cooperation.

Sincerely,

Donovan Moore

Donovan Moore

APPENDIX F

SECOND FOLLOW-UP INVITATION TO PARTICIPATE LETTER

OKLAHOMA STATE UNIVERSITY • STILLWATER

Research Foundation
(405) 372-6211, Ext. 271

74074

Educational Environments of
Elementary Schools in Oklahoma
Stillwater, Oklahoma 74074
April 26, 1971

Dear fellow principal,

Some time ago information about a state-wide study that asks fifth and sixth grade pupils to respond to statements about elementary schools was sent to you. Participation in the study will require only that each teacher of grades five and six administer a 40-item, true-false questionnaire with a response time of approximately 20 minutes to all of the pupils in his or her class. No data from pupils' permanent records will be requested. Only the identification facts listed on the enclosed sheet will be needed from each school.

It is important to have your school participate in the study. The executive committee of the Elementary School Principals has endorsed the study.

In addition to having the support of the O.A.E.S.P., this study has been submitted to the Department of Health, Education, and Welfare for funding and has been found by the non-government evaluators who reviewed it to be "educationally significant and the research design relatively sound." The proposal has been placed in a "hold" category awaiting additional information on the statistical analysis to be performed.

Please complete and return the enclosed data sheet to indicate that your school will participate in the study. Instructions for each teacher and the necessary number of survey booklets and answer sheets will be mailed to the school during the first week of May.

Sincerely,

Donovan Moore

Donovan Moore

APPENDIX G

LETTER ACKNOWLEDGING AGREEMENT TO PARTICIPATE IN STUDY

Oklahoma State University

DEPARTMENT OF EDUCATION

STILLWATER, OKLAHOMA 74074
GUNDERSEN HALL
(405) 372-6211, EXT. 6461

Educational Environments of
Elementary Schools in Oklahoma
Stillwater, Oklahoma 74074
April 23, 1971

Dear fellow principal,

Thank you very much for returning the post card indicating that you desire to have your school participate in the state-wide study of Educational Environments of Elementary Schools in Oklahoma.

Enclosed is the form asking for the seven basic facts about your school needed for the study. Please return the completed form as soon as possible in the envelope provided.

You may tell your teachers that they may expect to receive the instructions, instruments, and answer sheets during the first week of May.

Sincerely,

Donovan Moore

APPENDIX H

REVISED LETTER ACKNOWLEDGING AGREEMENT

TO PARTICIPATE

OKLAHOMA STATE UNIVERSITY • STILLWATER

Research Foundation
(405) 372-6211, Ext. 271

74074

Educational Environments of
Elementary Schools in Oklahoma
Stillwater, Oklahoma 74074
April 27, 1971

Dear fellow principal,

Thank you very much for agreeing to have your school participate in the state-wide study of Educational Environments of Elementary Schools in Oklahoma.

Enclosed is the form asking for the seven basic facts about your school needed for the study. Please return the completed form as soon as possible in the envelope provided.

You may tell your teachers that they may expect to receive the instructions, instruments, and answer sheets during the first week of May.

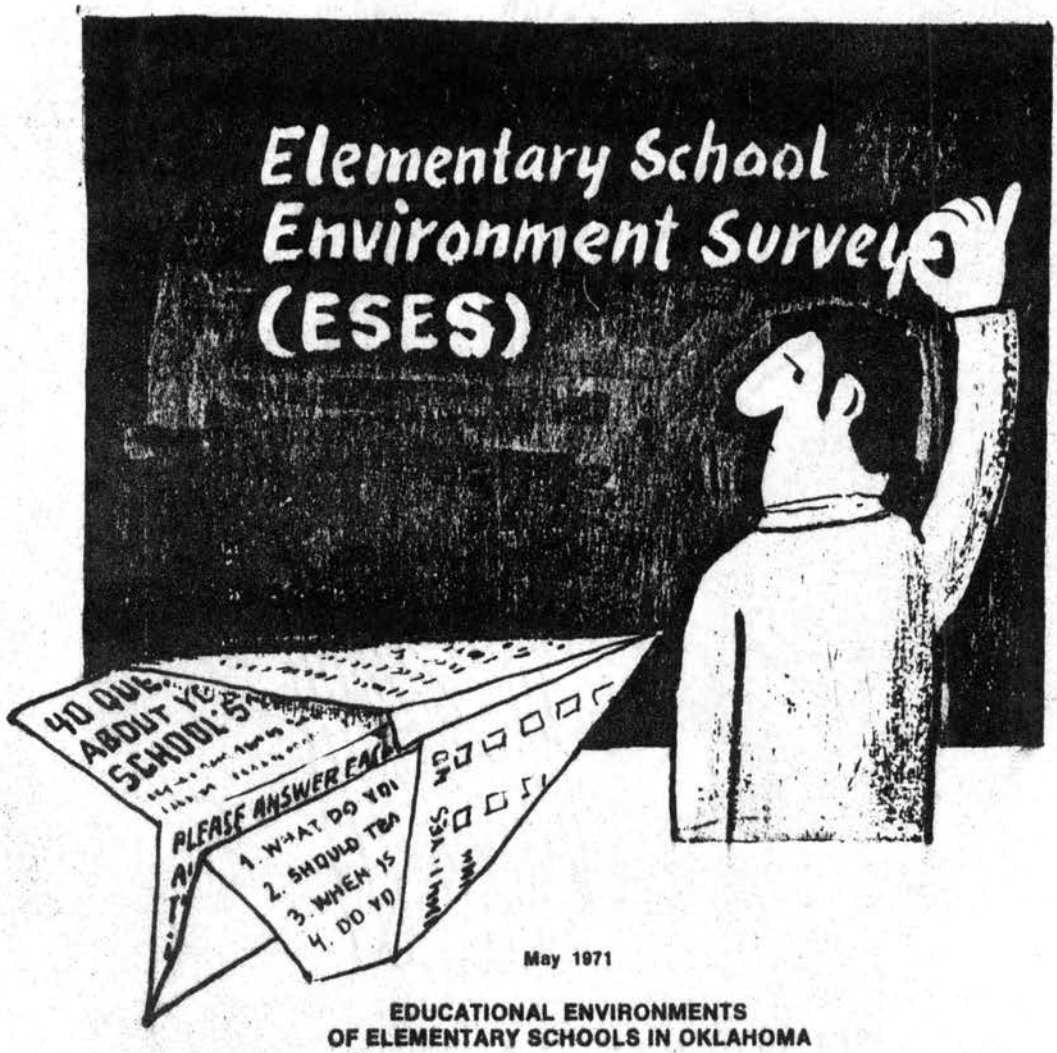
Sincerely,

Donovan Moore

APPENDIX I

FORM A-Sc, ELEMENTARY SCHOOL ENVIRONMENT SURVEY,

PRINTED AT OKLAHOMA STATE UNIVERSITY



May 1971

EDUCATIONAL ENVIRONMENTS OF ELEMENTARY SCHOOLS IN OKLAHOMA

Project Director: Dr. Russell Dobson
Oklahoma State University

Principal Investigator: Donovan Moore
Wichita, Kansas Public Schools

Endorsed by: *Oklahoma Association of Elementary School Principals*

A

ELEMENTARY SCHOOL ENVIRONMENT SURVEY (ESES)

This Survey is reprinted by permission of the author

Instructions To Students

We are interested in your ideas about the type of school you go to. You know a lot about the school because as a student you have played on its playground and studied in its classrooms. We are asking you to be a reporter and tell your thoughts about your school.

Please understand that this is not a test, and there are no right or wrong answers. In fact, we do not even ask your name. We simply want your honest ideas about your school.

There are 40 sentences about elementary schools in this booklet. You are to mark each sentence TRUE or FALSE.

How To Mark Sentences

When you think a sentence tells about your school mark that sentence TRUE by filling in the first space on the answer sheet. In other words, blacken the first space if you think the sentence tells the way things usually are in your school, what happens or might happen there, or the way people usually act or feel.

Fill in the last space on the answer sheet if the sentence is FALSE or is not the way things usually are in your school, is not what happens or might happen there, or is not the way people usually act or feel. Each item should be marked true or false. Do not mark the spaces between.

The following examples show how to mark a sentence:

If you agree, blacken the space closest to the number of the statement.

5 ▬

If you disagree, blacken the space farthest from the number of the statement.

7 ▬

Please mark the following sample:

S. Homework in this school is very easy.

S.

Now you are ready to mark each of the 40 sentences in the booklet. *It is important to remember that the sentences are about the total school.* Think about each sentence carefully and answer as honestly as you can. Take your time and mark only one space for each sentence. Make sure all sentences are marked. Erase completely any answers you wish to change.

Turn to sentence 1, and find the space on the answer sheet for marking this sentence. Now you may begin.

Form A-Sc

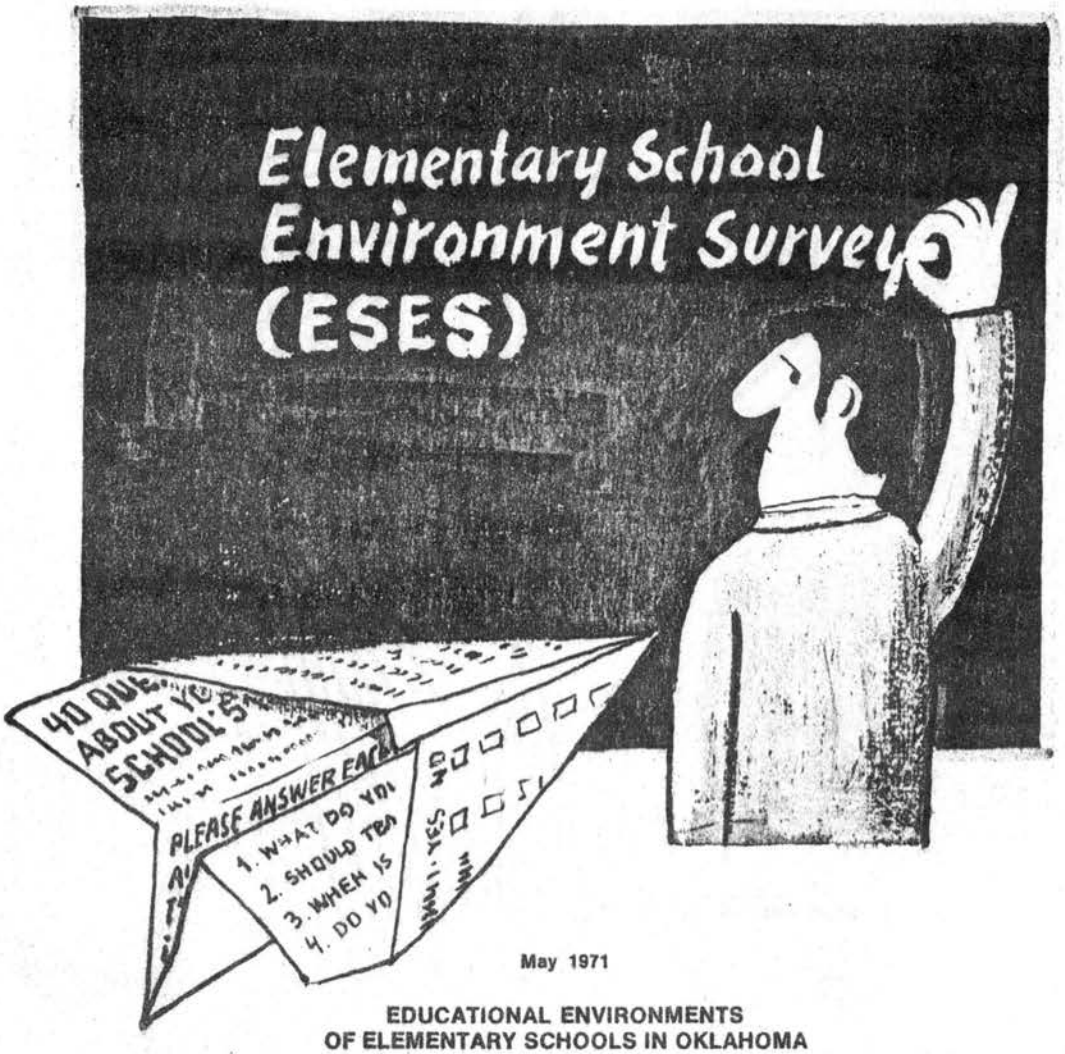
1. Teachers watch the students closely when they work to make sure there are no mistakes.
2. The attendance roll is called every day in class.
3. Students often work in small groups of about three or four students without the teacher.
4. Students try to get special favors from the teachers.
5. Bells ring during the day to tell students what classwork to do next.
6. In this school students usually have to line up before going into the classroom or leaving the classroom.
7. The subjects taught here do not help students learn how to solve real problems.
8. In this school students quickly learn what to do and what not to do.
9. Most students finish the projects and assignments that they start.
10. Most students here have homework many times during the week.
11. Science is probably the most important subject in this school.
12. In this school it is easy to pass most subjects without working hard.
13. Most students are happy if they do average work.
14. When school work gets difficult students study harder.
15. Most of the students in this school study a lot so that they can get high grades.
16. Most students here do not care much about their school work.
17. Many students like to stay around after school gets out.
18. Most of the teachers do not care about problems that students are having.
19. Students have many chances to help other students.
20. In this school students have parties in class to celebrate birthdays or other important days.
21. Teachers are kind and friendly when they work with students.
22. The students in this school feel like they are one big family.
23. Many of the students here are unhappy about the school.
24. Students here are often reminded to be careful about getting sick.
25. Many interesting people visit the school to play music or to talk about their experiences.
26. Students often talk about their own personal problems.
27. Most teachers do not try to get students interested in what's going on in the United States.
28. Many students often talk about what they think is right or wrong.
29. Quite a few of the teachers talk to students about concerts, plays and museums.
30. Many students talk about traveling to different parts of the United States.
31. In many classes students talk about what they do outside of school.
32. Social studies is not a very important subject in this school.
33. Students here are very quick to tell teachers about things that should be changed.
34. Students do not pay much attention to school rules and regulations.
35. Things like paper throwing or water fights are not likely to happen in this school.
36. Most students here do not like to get into any kind of argument.
37. Students almost always wait to be called on before speaking in class.
38. This school has a big program of sports or physical education activities.
39. Students sometimes make plans to do something bad to the school.
40. Students do not get any special favors in this school.

Thank you for marking these sentences.

APPENDIX J

FORM B-Sc, ELEMENTARY SCHOOL ENVIRONMENT SURVEY

PRINTED AT OKLAHOMA STATE UNIVERSITY



May 1971

EDUCATIONAL ENVIRONMENTS OF ELEMENTARY SCHOOLS IN OKLAHOMA

Project Director: Dr. Russell Dobson
Oklahoma State University

Principal Investigator: Donovan Moore
Wichita, Kansas Public Schools

Endorsed by: *Oklahoma Association of Elementary School Principals*

1969

B

ELEMENTARY SCHOOL ENVIRONMENT SURVEY (ESES)

This Survey is reprinted by permission of the author

Instructions To Students

We are interested in your ideas about the type of school you go to. You know a lot about the school because as a student you have played on its playground and studied in its classrooms. We are asking you to be a reporter and tell your thoughts about your school.

Please understand that this is not a test, and there are no right or wrong answers. In fact, we do not even ask your name. We simply want your honest ideas about your school.

There are 40 sentences about elementary schools in this booklet. You are to mark each sentence TRUE or FALSE.

How To Mark Sentences

When you think a sentence tells about your school mark that sentence TRUE by filling in the first space on the answer sheet. In other words, blacken the first space if you think the sentence tells the way things usually are in your school, what happens or might happen there, or the way people usually act or feel.

Fill in the last space on the answer sheet if the sentence is FALSE or is not the way things usually are in your school, is not what happens or might happen there, or is not the way people usually act or feel. Each item should be marked true or false. Do not mark the spaces between.

The following examples show how to mark a sentence:

If you agree, blacken the space closest to the number of the statement.

5 ▬ ⋯ ⋯ ⋯

If you disagree, blacken the space farthest from the number of the statement.

7 ⋯ ⋯ ⋯ ▬

Please mark the following sample:

S. Homework in this school is very easy.

S. ⋯ ⋯ ⋯ ⋯

Now you are ready to mark each of the 40 sentences in the booklet. *It is important to remember that the sentences are about the total school.* Think about each sentence carefully and answer as honestly as you can. Take your time and mark only one space for each sentence. Make sure all sentences are marked. Erase completely any answers you wish to change.

Turn to sentence 1. and find the space on the answer sheet for marking this sentence. Now you may begin.

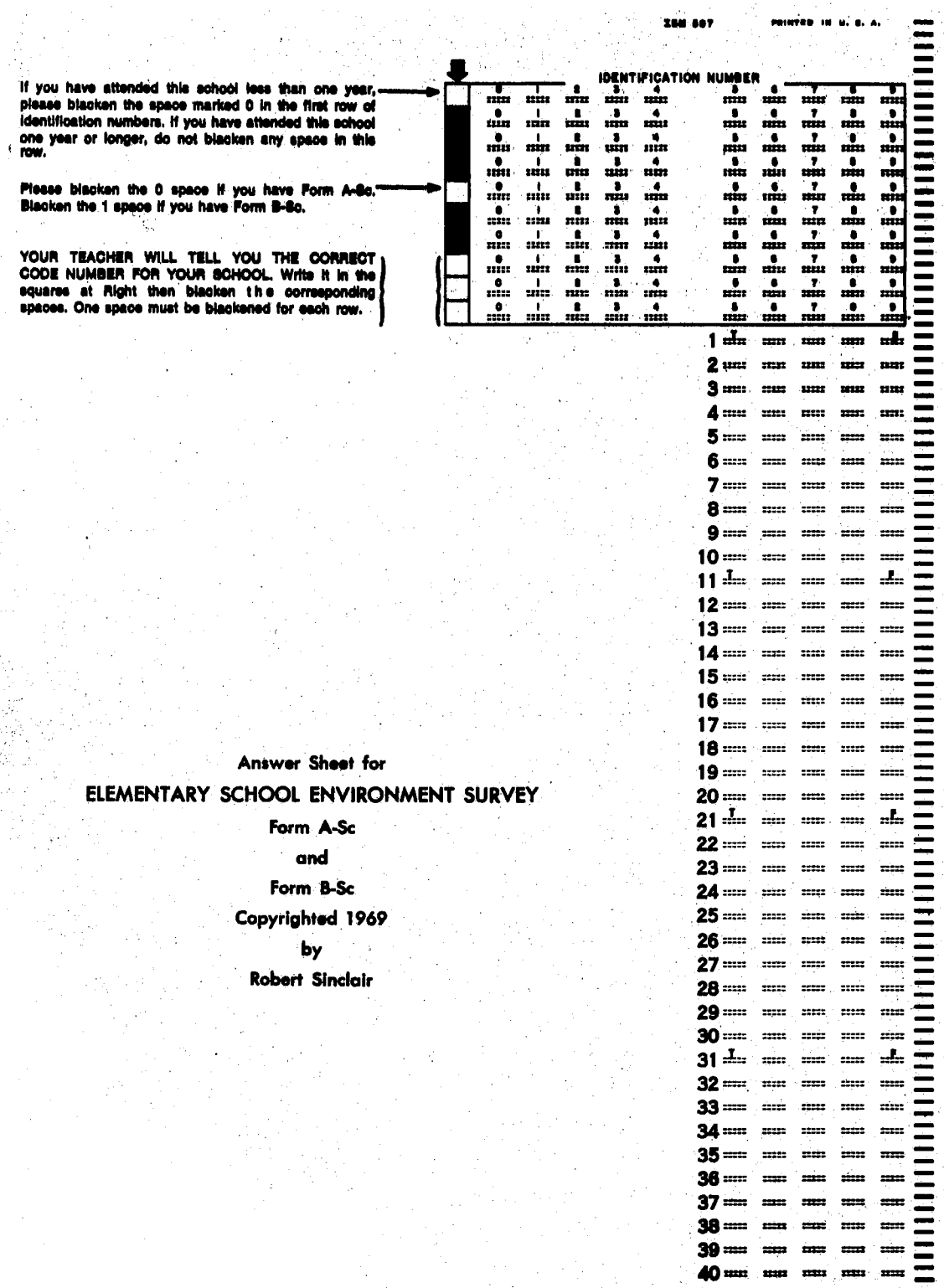
Form B-Sc

1. Many students say that they do not like the rules made by the teachers.
2. Many students do not behave while they are on the playground.
3. This school teaches students to be polite.
4. Students here are careful about taking good care of school property.
5. Many students get into trouble with the teachers.
6. Students know they should check with the teacher before they do something that might break a school rule.
7. Students often break or mark school property.
8. Students usually do not interrupt while someone else is talking.
9. Students have to stay after school if they break school rules.
10. The teachers seldom check to make sure that students finish their schoolwork.
11. Students here learn that they should put their ideas into action.
12. Students that the principal and teachers know will have it easier in this school.
13. One way to get good grades in this school is to be nice to the teachers.
14. In many classes, students sit in any seat they choose.
15. People know who the smartest or the best liked students are in this school.
16. Teachers will raise a student's grade if they think the student has worked very hard.
17. Most of the teachers in this school are unfriendly.
18. Many of the teachers go out of their way to help students.
19. If students are unhappy in school, the teacher will call their parents.
20. The teachers try to make sure that students get to know each other.
21. This school seems to be an unfriendly place.
22. Many teachers are too busy to talk to students about their problems or to give them extra help.
23. In this school students ask other students to visit them at home.
24. Many students help each other with their classwork.
25. Students often take field trips to interesting places.
26. In this school students have many chances to listen to music.
27. In this school it's important to be just like everyone else.
28. Students in this school do not think music is very important.
29. Most students have very little interest in knowing about the problems of other countries.
30. Many students try to understand why people do the things they do.
31. Most students are interested in such things as poetry, music, or painting.
32. In this school, many students talk about what's going on in the United States.
33. Students get good grades without spending much time studying.
34. Most of the teachers are very hard workers and they think the students should study hard too.
35. Most students like to figure out the answers to questions that the teacher asks.
36. Teachers seldom take their classes to the library so that students can look up information.
37. In this school everyone is expected to do good work.
38. Most students here put a lot of energy into everything they do.
39. Students may take books from the library shelves without the help of the librarian.
40. Students here care a lot about their school work.

Thank you for marking these sentences.

APPENDIX K

ANSWER SHEET FOR ELEMENTARY SCHOOL ENVIRONMENT SURVEY



Answer Sheet for

ELEMENTARY SCHOOL ENVIRONMENT SURVEY

Form A-Sc

and

Form B-Sc

APPENDIX L

INSTRUCTIONS TO TEACHERS FOR ADMINISTERING THE EDUCATIONAL SCHOOL ENVIRONMENTAL SURVEY

INSTRUCTIONS TO TEACHERS FOR ADMINISTERING THE EDUCATIONAL SCHOOL ENVIRONMENTAL SURVEY (ESES)

Normally the "Instructions to Students" included in the survey booklet are sufficient for an explanation of the nature and purpose of ESES. However, feel free to make any introductory remarks that you feel are necessary to eliminate pupil anxiety and promote cooperative and honest responses.

Pupils who are absent may be administered the survey on an individual basis. Also, pupils who have reading difficulties may be given the survey orally at a convenient time either before or after ESES is administered to the total group. The statements may be translated to another language and read to pupils if necessary.

There is no set time allotment for completing the statements. Answer sheets and booklets may be collected as individual pupils finish or when the total group has completed.

The following procedures are suggested for administering the Elementary School Environmental Survey. (Any arrangement made for a teacher to administer the ESES to the pupils in the case of an organizational plan other than self-contained classrooms, will be acceptable.)

1. Before going over the instructions with the pupils, be sure each pupil has:

   _____ Lead pencil for marking

   _____ Booklet, form A-Sc or form B-Sc

   _____ Answer sheet

2. Call attention to the special instructions on the pupil's answer sheet for pupils who have attended the present school less than a year.

   The pupils' instructions read:

   > If you have attended this school less than one year, please blacken the space marked 0 in the first row of identification numbers. If you have attended this school one year or longer, do not blacken any space in this row.

3. Call attention to the special instructions on the pupil's answer sheet for pupils to indicate if they have Form A-Sc or Form B-Sc. HALF OF THE PUPILS IN EACH CLASS SHOULD USE FORM A-SC AND HALF SHOULD USE FORM B-SC.

   The pupils' instructions read:

   > Please blacken the 0 space if you have Form A-Sc. Blacken the 1 space if you have Form B-Sc.

4. Call attention to the special instructions on the pupil's answer sheet for pupils to fill in the code number of your school. _____ School has the code number of _____ _____ _____*

   The pupils' instructions read:

   > YOUR TEACHER WILL TELL YOU THE CORRECT CODE NUMBER FOR YOUR SCHOOL. Write it in the squares at the Right then blacken the corresponding spaces. One space must be blackened for each row.

5. Check to see that each row of identification numbers that is to be filled in has one space blackened.

   _____ To indicate if pupil has attended school less than a year.

   _____ To indicate if pupil has form A-Sc or form B-Sc.

   _____ To indicate the school code number.

6. Read the "Instructions to Students" aloud while having each pupil read along silently. The "Instructions to Students" are located on the second page of the Survey Booklet.

7. After the pupils have filled in the example statement included in the instructions, check to make sure the pupils understand the process of marking the statements by viewing their responses.

8. Tell the pupils to find the first statement and begin.

9. Place completed answer sheets and *all copies of the instrument* in the self-addressed mailing container provided and send to investigator.

---

*While comparisons among individual schools will not be made, each school has been given a code number so it will be possible for the computer to group answer sheets together by schools for analysis of the data.

Please Note:

Pages 124-134, Appendices I - L, "Elementary School Environment Survey, Forms A & B - Sc. and Answer Sheets," copyright 1969 by Dr. Robert Sinclair, not microfilmed at request of author. Available for consultation at Oklahoma State University Library.

University Microfilms.

APPENDIX M

LETTER OF APPRECIATION FOR PARTICIPATING IN THE STUDY

OKLAHOMA STATE UNIVERSITY • STILLWATER
Research Foundation
(405) 372-6211, Ext. 271
74074

May 27, 1971

Dear Principal,

Would you please express to the fifth and sixth grade teachers of your school our sincere appreciation for taking time from their busy schedule to help in the state wide survey of Educational Environmentals of Elementary Schools in Oklahoma by administering the Educational School Environmental Survey to the pupils in their class.

The information about the educational atmosphere of your elementary school expressed in profile form that was promised to you for participating in the study will be mailed during the month of September.

While a descriptive study can not directly influence any change in a local school's environment, a report of a school's environment as perceived by the pupils who live in that environment can serve as the catalyst to move principals and teachers to create fresh educational surroundings that meet the personal and academic needs of children. It is hoped that the feedback provided by this study will be beneficial in the continuous evaluation process of your school.

Again, thank you for being a participant in this study; your cooperation was certainly appreciated. We are looking forward to sharing the results of study with you and your teachers.

Sincerely yours,

Donovan Moore

Donovan Moore
Principal Investigator

Russell Dobson
Project Director
Associate Professor
Department of Education

APPENDIX N

SCHOOL DATA SHEET

EDUCATIONAL ENVIRONMENTS OF ELEMENTARY SCHOOLS IN OKLAHOMA

School Data Sheet

School Code Number ___ ___ ___*

Number of 5th and 6th grade teachers _____

Number of 5th and 6th grade pupils _____

1. Sex of Principal Female _____ Male_____

Please check one answer in each item below that best describes your school.

2. The school is located in an urban setting. _____

The school is located in a rural setting. _____

3. The school is designated as an E.S.E.A. Title I school. _____

The school is not designated as an E.S.E.A. Title I school. _____

4. The school has a pupil enrollment of

less than 200 _____ 401 to 600 _____

201 to 400 _____ over 600 _____

5. The age range that best describes the average age of the fifth and sixth grade teachers in the school is

under 30 years _____ 41 - 50 years _____

31 - 40 years _____ over 50 years _____

6. The internal walls of the school are

permanent, non-movable _____

flexible, movable, or adjustable _____

non-existing _____

7. The organizational plan that best describes the fifth and sixth grade classrooms is

self-contained classrooms _____

ability grouped classrooms _____

nongraded units _____

departmentalized classrooms _____

team teaching _____

*Each school in the study has been assigned a number to make it possible for the computer to store information by school. It also identifies the school's correct mailing address. No identification or comparison will be made of individual schools participating in the study.

APPENDIX O

PILOT STUDY FORM OF INSTRUCTIONS TO TEACHERS FOR ADMINISTERING THE EDUCATIONAL SCHOOL ENVIRONMENTAL SURVEY

INSTRUCTIONS TO TEACHERS FOR ADMINISTERING THE EDUCATIONAL SCHOOL ENVIRONMENTAL SURVEY (ESES)

Normally the "Instructions to Students" included in the survey booklet are sufficient for an explanation of the nature and purpose of ESES. However, feel free to make any introductory remarks that you feel are necessary to eliminate pupil anxiety and promote cooperative and honest responses.

The following procedures are suggested for administering the Elementary School Environmental Survey.*

1. After seeing that each pupil has a lead pencil for marking, pass out a booklet and answer sheet to each pupil.

2. Call attention to the special instructions on the pupil's answer sheet for pupils who have attended the present school less than a year. Any pupil who was enrolled at the end of the school year in the spring of 1970 may be considered to have attended the present school for a year.

3. Tell the pupils the code number for your school. (See below for number.) Check to see that each of the columns has one space blackened.
   Example: The number 004 should have the zero space blackened for the first two columns and the four space blackened for the third column.

4. Read the "Instructions to Students" aloud while having each pupil read along silently.

5. After the pupils have filled in the example statement included in the instructions, check to make sure the pupils understand the process of marking the statements by viewing their responses.

6. Tell the pupils to find the first statement and begin.

7. There is no set time allotment for completing the statements. Answer sheets and booklets may be collected as individual pupils finish or when the total group has completed.

8. Place completed answer sheets in the self-addressed mailing container provided and send to investigator.

9. Pupils who are absent may be administered the survey on an individual basis. Also, pupils who have reading difficulties may be given the survey orally at a convenient time either before or after ESES is administered to the total group. The statements may be translated to another language and read to pupils if necessary.

10. Dispose of test booklets when finished with them.

---

*Any arrangement made for a teacher to administer the ESES to the pupils in the case of an organizational plan other than self-contained classrooms, will be acceptable.

While comparisons among individual schools will not be made, each school has been given a code number so it will be possible for the computer to group answer sheets together by schools for analysis of the data.

_____ School has the code number of ___ ___ ___

APPENDIX P

PILOT STUDY FORM OF ELEMENTARY

SCHOOL ENVIRONMENT SURVEY

ELEMENTARY SCHOOL ENVIRONMENT SURVEY (ESES)

INSTRUCTIONS TO STUDENTS

We are interested in your ideas about the type of school you go to. You know a lot about the school because as a student you have played on its playgrounds and studied in its classrooms. We are asking you to be a reporter and tell your thoughts about your school.

Please understand that this is not a test, and there are no right or wrong answers. In fact, we do not even ask your name. We simply want your honest ideas about your school.

There are 40 sentences about elementary schools in this booklet. You are to mark each sentence TRUE or FALSE.

How To Mark Sentences

When you think a sentence tells about your school mark that sentence TRUE by filling in the first space on the answer sheet. In other words, blacken the first space if you think the sentence tells the way things usually are in your school, what happens or might happen there, or the way people usually act or feel.

Fill in the last space on the answer sheet if the sentence is FALSE or is not the way things usually are in your school, is not what happens or might happen there, or is not the way people usually act or feel.

The following examples show how to mark a sentence:

If you agree, blacken the space closest to the number of the statement. 5. ■ ::: ::: ::: :::

If you disagree, blacken the space farthest from the number of the statement. 7. ::: ::: ::: ::: ■

Please mark the following sample:

1. Homework in this school is very easy. 1. ::: ::: ::: ::: ■

Now you are ready to mark each of the 40 sentences in the booklet. It is important to remember that the sentences are about the total school. Think about each sentence carefully and answer as honestly as you can. Take your time and mark only one space for each sentence. Make sure all sentences are marked.

Find sentence 1. and the space on the answer sheet for marking this sentence. Now you may begin.

1. Teachers watch the students closely when they work to make sure there are no mistakes.

2. The attendance roll is called every day in class.

3. Students often work in small groups of about three or four students without the teacher.

4. Students try to get special favors from the teachers.

5. Bells ring during the day to tell students what classwork to do next.

6. In this school students usually have to line up before going into the classroom or leaving the classroom.

7. The subjects taught here do not help students learn how to solve real problems.

8. In this school students quickly learn what to do and what not to do.

9. Most students finish the projects and assignments that they start.

10. Most students here have homework many times during the week.

11. Science is probably the most important subject in this school.

12. In this school it is easy to pass most subjects without working hard.

13. Most students are happy if they do average work.

14. When school work gets difficult students study harder.

15. Most of the students in this school study a lot so that they can get high grades.

16. Most students here do not care much about their school work.

17. Many students like to stay around after school gets out.

18. Most of the teachers do not care about problems that students are having.

19. Students have many chances to help other students.

20. In this school students have parties in class to celebrate birthdays or other important days.

21. Teachers are kind and friendly when they work with students.

22. The students in this school feel like they are one big family.

23. Many of the students here are unhappy about the school.

24. Students here are often reminded to be careful about getting sick.

25. Many interesting people visit the school to play music or to talk about their experiences.

26. Students often talk about their own personal problems.

TURN TO THE NEXT PAGE

27. Most teachers do not try to get students interested in what's going on in the United States.

28. Many students often talk about what they think is right or wrong.

29. Quite a few of the teachers talk to students about concerts, plays and museums.

30. Many students talk about traveling to different parts of the United States.

31. In many classes students talk about what they do outside of school.

32. Social studies is not a very important subject in this school.

33. Students here are very quick to tell teachers about things that should be changed.

34. Students do not pay much attention to school rules and regulations.

35. Things like paper throwing or water fights are not likely to happen in this school.

36. Most students here do not like to get into any kind of argument.

37. Students almost always wait to be called on before speaking in class.

38. This school has a big program of sports or physical education activities.

39. Students sometimes make plans to do something bad to the school.

40. Students do not get any special favors in this school.

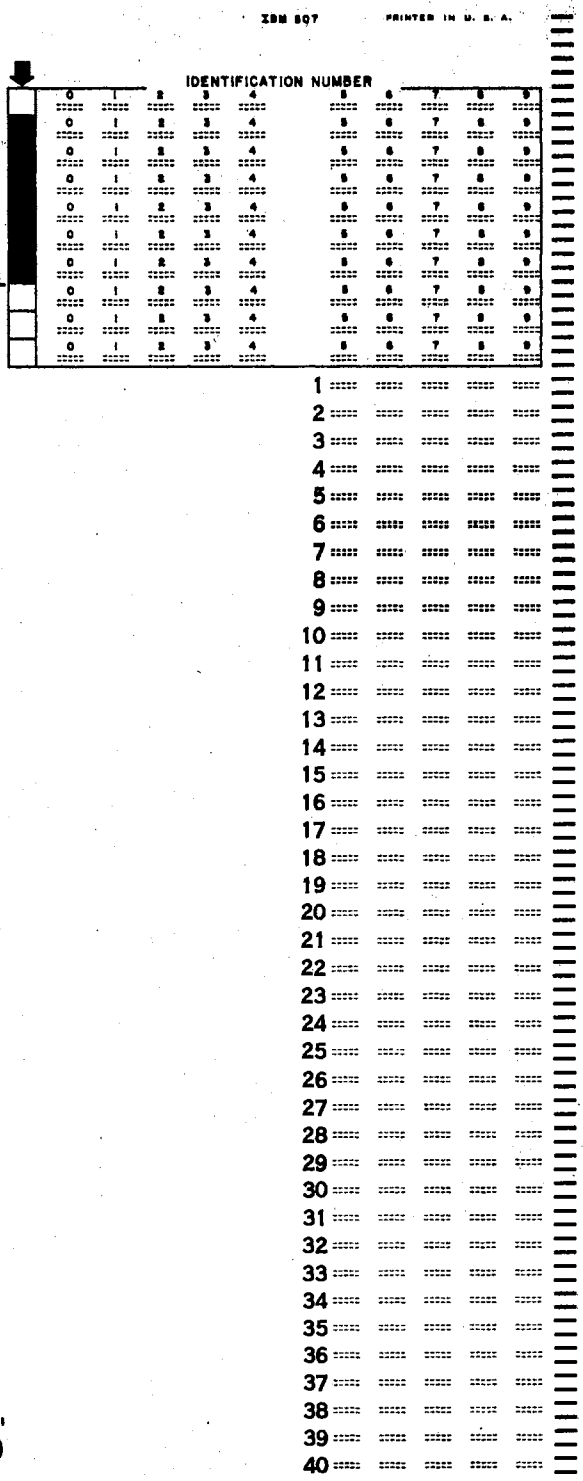
THANK YOU FOR MARKING THESE SENTENCES.

APPENDIX Q

PILOT STUDY FORM OF ANSWER SHEET FOR ELEMENTARY SCHOOL ENVIRONMENT SURVEY

If you have attended this school less than one year, please blacken the space marked 0 in the first row of identification numbers. If you have attended this school one year or longer, do not blacken any space in this row.

Please mark the code number for your school in the proper spaces of the last three rows of identification numbers. YOUR TEACHER WILL TELL YOU THE CORRECT CODE NUMBER. Write the numbers in the squares provided then blacken the corresponding spaces. One space must be blackened for each row.



ELEMENTARY SCHOOLS

EDUCATIONAL ENVIRONMENTS

OF ELEMENTARY SCHOOLS

IN OKLAHOMA

Answer sheet for
"Elementary School Environment Survey"

APPENDIX R

SPECIAL INSTRUCTIONS FOR TEACHERS PARTICIPATING IN THE PILOT STUDY OF THE EDUCATIONAL ENVIRONMENTS IN ELEMENTARY SCHOOLS

March 1, 1971

TO: Wichita Fifth and Sixth Grade Teachers

FROM: Donovan Moore, Graduate Student, Oklahoma State University

SUBJECT: Special instructions for teachers participating in the pilot study of the Educational Environments in Elementary Schools

The purpose of this pilot study is to field test the "Instructions to Teachers for Administering the Educational School Environmental Survey" to determine if the directions are clear or if you encounter problems that merit changes or additions to the instructions.

This pilot study will also provide a procedure through which each step of the entire study will become operational. Thus, any problem area should be identified.

I appreciate very much you taking time from your crowded schedule to administer the ESES to the pupils in your class.

DISREGARD ITEM 8 OF THE INSTRUCTIONS TO TEACHERS. Please keep the completed answer sheets until Friday, March 12. They will be collected when I meet with you on that date.

APPENDIX S

LETTER ACCOMPANYING IBM PRINTOUT OF INDIVIDUAL ELEMENTARY SCHOOL ENVIRONMENT SURVEY PROFILES FOR PARTICIPATING SCHOOLS

Oklahoma State University

DEPARTMENT OF EDUCATION

STILLWATER, OKLAHOMA 74074
GUNDERSEN HALL
(405) 372-6211, EXT. 6461

November 26, 1971

Educational Environments of
Elementary Schools in Oklahoma
Oklahoma State University
Stillwater, Oklahoma 74074

Dear Principal:

Enclosed you will find the information about the educational atmosphere of your elementary school as perceived by the pupils of your school. This information is being sent to you, as promised, for participating in the state wide survey of Educational Environments of Elementary Schools in Oklahoma. The information, which is expressed in profile form, was obtained by having the fifth and sixth grade pupils respond to the Elementary School Environmental Survey (ESES).

Please notice that in addition to giving the educational profile of your school, the enclosed IBM print out sheet gives the mean scores for the schools that have the same characteristics as your school. This makes it possible to compare your school with other schools who participated in the study.

Thank you for allowing your school to participate in the study. Without the cooperation of your fifth and sixth grade teachers and the teachers in the 112 other schools thoughout the state of Oklahoma, research involving such a large number of schools would have been impossible.

Hopefully, this information will be helpful in the evaluation process of your school. No value has been placed on the appropriateness or inappropriateness of individual school scores. A descriptive study can only report findings, no cause and effect relationships can be supported.

Anonymity of your school has been maintained. The key to the code numbers used to identify the schools participating in the study is available to this researcher only. There is no objection, however, to individual schools revealing their identity. If publicity of participating in the study is desired, copy of the news release that was featured on page 32 in the September, 1971, The Oklahoma Teacher, may be obtained from Oklahoma State University Research Foundation, "Research Reports", Phyllis Luebke, Editor.

This research project was funded by the Department of Health, Education, and Welfare by authority of P.L. 83-531, Cooperative Research Act, as amended by P.L. 89-10, Title IV, Sec. 2(a), Cooperative Research Program, Small

Project Research. Any publication or presentation resulting from or primarily related to the work and/or services being performed hereunder shall contain the following acknowledgement:

> "The project presented or reported herein was performed pursuant to a contract with the U.S. Office of Education, Department of Health, Education, and Welfare. The opinions expressed herein, however, do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred."

Sincerely,

Donovan Moore

Donovan Moore
Principal Investigator

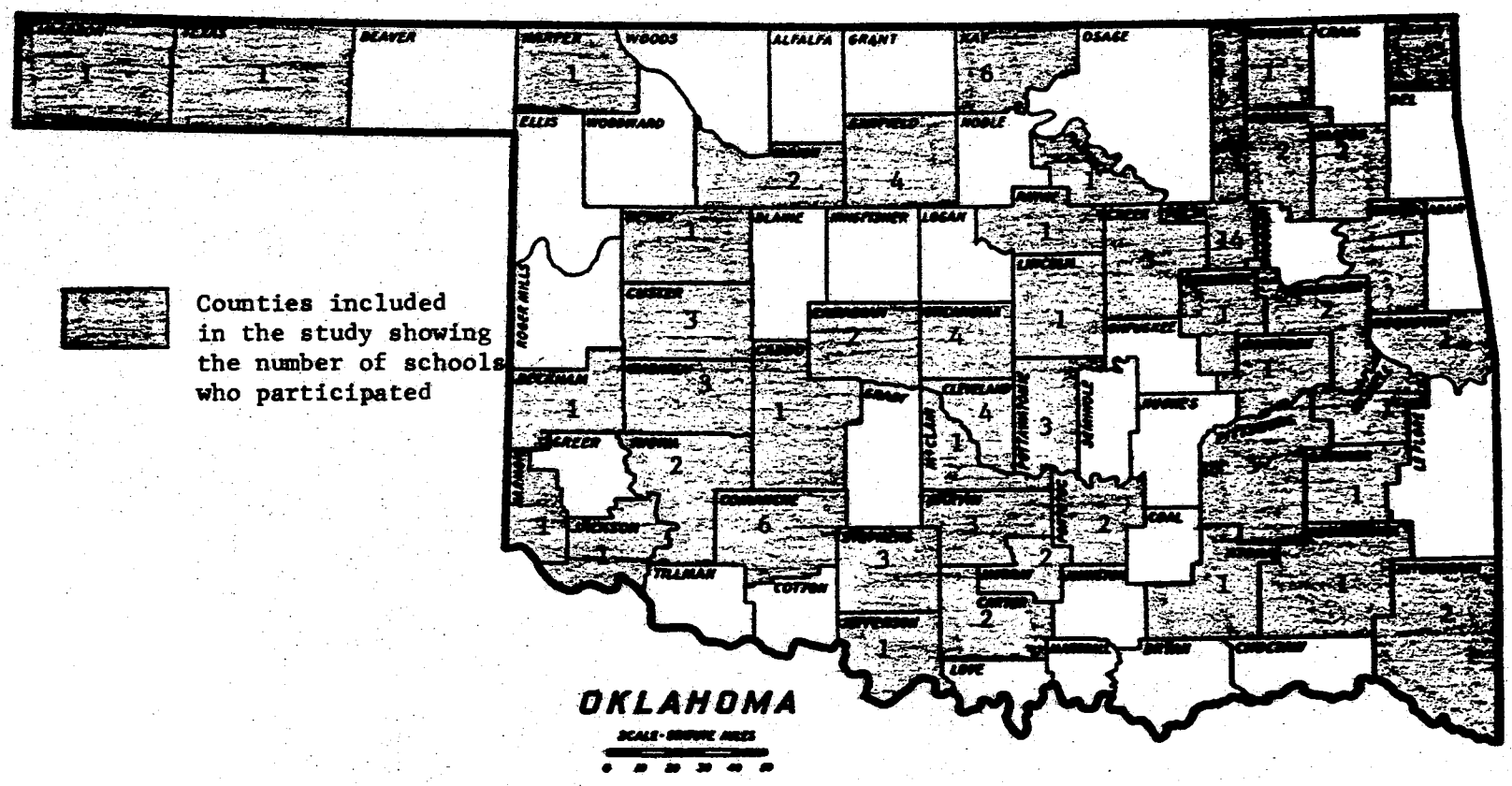
Russell Dobson

Russell Dobson
Project Director
Associate Professor
Department of Education

APPENDIX T

OKLAHOMA MAP SHOWING THE GEOGRAPHICAL LOCATION OF SCHOOLS WHO PARTICIPATED IN THE STUDY

EDUCATIONAL ENVIRONMENTS OF ELEMENTARY SCHOOLS IN OKLAHOMA



APPENDIX U

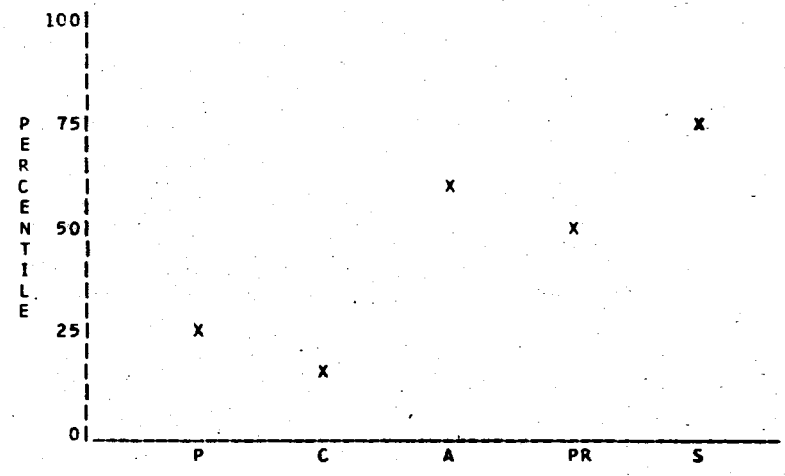
SAMPLE OF IBM PRINTOUT SENT TO EACH SCHOOL PARTICIPATING IN THE STUDY

ELEMENTARY SCHOOL ENVIORNMENT SURVERY SCORE

PRACTICALITY - 25
COMMUNITY - 26
AWARENESS - 28
PROPRIETY - 23
SCHOLARSHIP - 29

TOTAL NUMBER OF USEABLE ANSWER SHEETS OF 5TH AND 6TH GRADERS - 25

SCHOOL PROFILE



MEAN SCORE OF SCHOOLS HAVING	P	C	A	PR	S
FEMALE PRINCIPALS	26.9	29.0	28.0	24.2	28.0
RURAL SETTING	26.5	28.9	27.8	24.4	28.1
NON-TITLE I SCHOOLS	26.8	29.1	28.3	24.3	28.5
ENROLLMENT 201-400	26.5	29.2	27.7	24.0	28.2
AGE OF TEACHERS 31-40	26.4	28.7	28.1	24.0	28.1
PERMANENT INTERNAL WALLS	26.6	28.8	27.9	24.0	28.0
SELF-CONTAINED CLASSROOMS	26.1	28.9	27.8	23.9	28.0

APPENDIX V

ELEMENTARY SCHOOL ENVIRONMENT SURVEY RAW SCORES, Z SCORES, AND PERCENTILE SCORES FOR PARTICIPATING SCHOOLS

ALL SCHOOLS

SCHOOL	VARIABLE SCORES (RAW SCORES) P	C	A	P	S	STANDARD SCORES (Z SCORES) P	C	A	P	S	PERCENTILE SCORES P	C	A	P	S
101	25	26	28	23	29	-0.81	-1.13	0.03	-0.44	0.50	25	16	62	50	78
102	27	31	26	26	28	0.25	0.90	-0.79	0.97	0.0	70	87	25	89	61
106	26	27	26	20	26	-0.28	-0.73	-0.79	-1.86	-1.00	49	22	24	2	23
108	28	29	26	23	28	0.79	0.09	-0.79	-0.44	0.0	85	57	23	49	68
110	25	28	27	24	27	-0.81	-0.32	-0.38	0.03	-0.50	25	45	43	64	48
111	29	30	26	23	26	1.32	0.50	-0.79	-0.44	-1.00	95	75	22	48	22
112	28	30	27	23	30	0.79	0.50	-0.38	-0.44	1.00	85	75	42	47	88
113	27	30	29	25	28	0.25	0.50	0.45	0.50	0.0	69	74	75	77	59
114	25	29	28	26	32	-0.81	0.09	0.03	0.97	1.99	24	56	61	88	100
115	25	28	28	23	25	-0.81	-0.32	0.03	-0.44	-1.49	23	44	60	46	7
117	26	27	23	23	26	-0.28	-0.73	-2.04	-0.44	-1.00	48	21	5	45	21
119	27	29	32	21	28	0.25	0.09	1.69	-1.39	0.0	68	55	97	8	58
121	22	28	28	23	26	-2.41	-0.32	0.03	-0.44	-1.00	4	43	59	45	20
122	24	31	29	23	29	-1.35	0.90	0.45	-0.44	0.50	12	86	75	44	77
124	25	27	26	23	27	-0.81	-0.73	-0.79	-0.44	-0.50	22	20	21	43	39
126	26	24	28	22	27	-0.28	-1.95	0.03	-0.91	-0.50	47	7	58	28	38
127	26	30	31	28	31	-0.28	0.50	1.28	1.92	1.49	46	73	93	97	95
128	27	30	31	28	30	0.25	0.50	1.28	1.92	1.00	67	72	92	96	87
129	22	22	23	20	23	-2.41	-2.76	-2.04	-1.86	-2.49	3	3	4	1	3
130	28	32	28	25	30	0.79	1.31	0.03	0.50	1.00	84	96	57	76	86
131	30	33	32	26	31	1.85	1.72	1.69	0.97	1.49	99	100	96	87	95
132	25	28	25	27	27	-0.81	-0.32	-1.21	1.45	-0.50	21	42	13	93	37
133	27	24	27	22	26	0.25	-1.95	-0.38	-0.91	-1.00	66	6	41	27	19
136	26	28	28	24	28	-0.28	-0.32	0.03	0.03	0.0	45	41	56	63	57
137	29	30	30	25	29	1.32	0.50	0.86	0.50	0.50	95	71	86	75	76
140	26	29	26	22	26	-0.28	0.09	-0.79	-0.91	-1.00	45	55	20	26	18
143	26	32	30	26	28	-0.28	1.31	0.86	0.97	0.0	44	95	85	86	56
145	26	30	27	26	30	-0.28	0.50	-0.38	0.97	1.00	43	70	40	85	85
146	29	24	26	24	29	1.32	-1.95	-0.79	0.03	0.50	94	5	19	62	75
147	24	25	24	22	27	-1.35	-1.54	-1.62	-0.91	-0.50	11	9	7	25	36
148	27	29	28	26	31	0.25	0.09	0.03	0.97	1.49	65	54	55	85	94
149	25	32	25	23	28	-0.81	1.31	-1.21	-0.44	0.0	20	95	12	42	55
150	28	30	28	23	29	0.79	0.50	0.03	-0.44	0.50	83	69	55	41	75
154	28	28	28	26	28	0.79	-0.32	0.03	0.97	0.0	82	40	54	84	55
157	25	32	31	26	28	-0.81	1.31	1.28	0.97	0.0	19	94	91	83	54
158	30	30	29	23	30	1.85	0.50	0.45	-0.44	1.00	98	66	74	40	85
160	27	28	31	25	25	0.25	-0.32	1.28	0.50	-1.49	65	39	90	75	6
161	26	28	26	21	26	-0.28	-0.32	-0.79	-1.39	-1.00	42	38	18	7	17
162	25	30	25	21	26	-0.81	0.50	-1.21	-1.39	-1.00	18	67	11	6	16
164	26	28	27	26	30	-0.28	-0.32	-0.38	0.97	1.00	41	37	39	82	84
165	26	28	27	23	26	-0.28	-0.32	-0.38	-0.44	-1.00	40	36	38	39	15
166	26	26	28	22	29	-0.28	-1.13	0.03	-0.91	0.50	39	15	53	25	74
167	28	33	34	27	32	0.79	1.72	2.52	1.45	1.99	81	99	100	92	99
168	27	26	27	24	27	0.25	-1.13	-0.38	0.03	-0.50	64	15	37	61	35
169	29	31	27	28	31	1.32	0.90	-0.38	1.92	1.49	93	85	36	95	93
172	22	28	28	23	26	-2.41	-0.32	0.03	-0.44	-1.00	2	35	52	38	15
179	24	26	26	24	23	-1.35	-1.13	-0.79	0.03	-2.49	10	14	17	60	2
187	26	28	28	24	31	-0.28	-0.32	0.03	0.03	1.49	38	35	51	59	92
189	26	31	30	26	30	-0.28	0.90	0.86	0.97	1.00	37	85	85	81	83
192	23	27	27	22	27	-1.88	-0.73	-0.38	-0.91	-0.50	7	19	35	24	35
193	27	28	27	22	27	0.25	-0.32	-0.38	-0.91	-0.50	63	34	35	23	34
195	29	29	24	22	24	1.32	0.09	-1.62	-0.91	-1.99	92	53	6	22	4
198	23	29	28	22	28	-1.88	0.09	0.03	-0.91	0.0	6	52	50	21	53
199	23	30	28	24	27	-1.88	0.50	0.03	0.03	-0.50	5	66	49	58	33
201	25	30	31	22	29	-0.81	0.50	1.28	-0.91	0.50	17	65	89	20	73
202	26	31	26	26	29	-0.28	0.90	-0.79	0.97	0.50	36	84	16	80	72
203	28	30	28	22	27	0.79	0.50	0.03	-0.91	-0.50	80	65	48	19	32
204	28	27	25	23	28	0.79	-0.73	-1.21	-0.44	0.0	79	18	10	37	52
205	28	28	29	22	28	0.79	-0.32	0.45	-0.91	0.0	78	33	73	18	51

206	25	28	29	31	31	-0.81	-0.32	0.45	3.34	1.49	16	32	72	100	91
209	27	32	30	29	31	0.25	1.31	0.86	2.39	1.49	62	93	84	99	90
213	29	33	30	25	30	1.32	1.72	0.86	0.50	1.00	91	98	83	74	82
214	27	30	29	22	28	0.25	0.50	0.45	-0.91	0.0	61	64	71	17	50
215	27	28	28	25	27	0.25	-0.32	0.03	0.50	-0.50	60	31	47	73	31
216	24	25	26	22	28	-1.35	-1.54	-0.79	-0.91	0.0	9	8	15	16	49
217	31	33	31	28	29	2.38	1.72	1.28	1.92	0.50	100	97	88	95	71
221	26	29	29	22	26	-0.28	0.09	0.45	-0.91	-1.00	35	51	70	15	14
222	27	31	27	23	29	0.25	0.90	-0.38	-0.44	0.50	59	83	34	36	70
223	26	31	30	25	29	-0.28	0.90	0.86	0.50	0.50	35	82	82	72	69
227	28	28	26	22	26	0.79	-0.32	-0.79	-0.91	-1.00	77	30	15	15	13
228	27	26	26	23	28	0.25	-1.13	-0.79	-0.44	0.0	58	13	14	35	48
250	25	24	21	22	25	-0.81	-1.95	-2.86	-0.91	-1.49	15	5	1	14	5
258	26	31	30	23	29	-0.28	0.90	0.86	-0.44	0.50	34	81	81	35	68
260	25	30	27	25	29	-0.81	0.50	-0.38	0.50	0.50	15	63	33	71	67
261	29	26	25	27	27	1.32	-1.13	-1.21	1.45	-0.50	90	12	9	91	30
262	30	32	28	25	29	1.85	1.31	0.03	0.50	0.50	97	92	46	70	66
263	27	32	31	24	32	0.25	1.31	1.28	0.03	1.99	57	91	87	57	98
264	26	31	30	23	28	-0.28	0.90	0.86	-0.44	0.0	33	80	80	34	47
265	24	29	29	22	29	-1.35	0.09	0.45	-0.91	0.50	8	50	69	13	65
270	28	28	22	21	28	0.79	-0.32	-2.45	-1.39	0.0	76	29	3	5	46
271	27	28	29	24	29	0.25	-0.32	0.45	0.03	0.50	56	28	68	56	65
272	27	29	27	21	25	0.25	0.09	-0.38	-1.39	-1.49	55	49	32	5	5
275	25	26	24	22	28	-0.81	-1.13	-1.62	-0.91	0.0	14	11	5	12	45
277	26	22	22	25	22	-0.28	-2.76	-2.45	0.50	-2.99	32	2	2	69	1
278	26	28	29	24	26	-0.28	-0.32	0.45	0.03	-1.00	31	27	67	55	12
279	26	27	27	24	27	-0.28	-0.73	-0.38	0.03	-0.50	30	17	31	55	29
280	28	30	30	24	28	0.79	0.50	0.86	0.03	0.0	75	62	79	54	45
281	29	28	27	24	29	1.32	-0.32	-0.38	0.03	0.50	89	26	30	53	64
284	26	28	28	23	26	-0.28	-0.32	0.03	-0.44	-1.00	29	25	45	33	11
286	28	30	28	26	29	0.79	0.50	0.03	0.97	0.50	75	61	45	79	63
287	25	28	30	24	28	-0.81	-0.32	0.86	0.03	0.0	13	25	78	52	44
289	27	29	32	25	28	0.25	0.09	1.69	0.50	0.0	55	48	95	68	43
293	27	29	27	26	27	0.25	0.09	-0.38	0.97	-0.50	54	47	29	78	28
295	27	23	29	24	27	0.25	-2.36	0.45	0.03	-0.50	53	4	66	51	27
297	28	32	29	25	30	0.79	1.31	0.45	0.50	1.00	74	90	65	67	81
303	28	29	29	23	27	0.79	0.09	0.45	-0.44	-0.50	73	46	65	32	26
305	27	32	33	29	32	0.25	1.31	2.10	2.39	1.99	52	89	99	98	97
306	22	31	27	22	26	-2.41	0.90	-0.38	-0.91	-1.00	1	79	28	11	10
307	28	26	27	21	27	0.79	-1.13	-0.38	-1.39	-0.50	72	10	27	4	25
308	30	30	30	23	28	1.85	0.50	0.86	-0.44	0.0	96	60	77	31	42
310	29	28	28	23	29	1.32	-0.32	0.03	-0.44	0.50	88	24	44	30	62
311	28	31	33	22	30	0.79	0.90	2.10	-0.91	1.00	71	78	98	10	80
314	23	22	27	21	26	-1.88	-2.76	-0.38	-1.39	-1.00	5	1	26	3	9
319	27	31	32	25	32	0.25	0.90	1.69	0.50	1.99	51	77	95	66	96
321	27	28	27	22	28	0.25	-0.32	-0.38	-0.91	0.0	50	23	25	9	41
323	26	30	29	28	31	-0.28	0.50	0.45	1.92	1.49	28	59	64	94	89
325	29	29	30	25	27	1.32	0.09	0.86	0.50	-0.50	87	45	76	65	25
326	29	31	32	27	30	1.32	0.90	1.69	1.45	1.00	86	76	94	90	79
328	26	32	25	25	26	-0.28	1.31	-1.21	0.50	-1.00	27	88	8	65	8
329	26	30	29	23	27	-0.28	0.50	0.45	-0.44	-0.50	26	58	63	29	24
MEAN	26.5	28.8	27.9	23.9	28.0	0.00	0.00	0.00	0.00	0.00					
SD	1.9	2.5	2.4	2.1	2.0	1.00	1.00	1.00	1.00	1.00					
N	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110

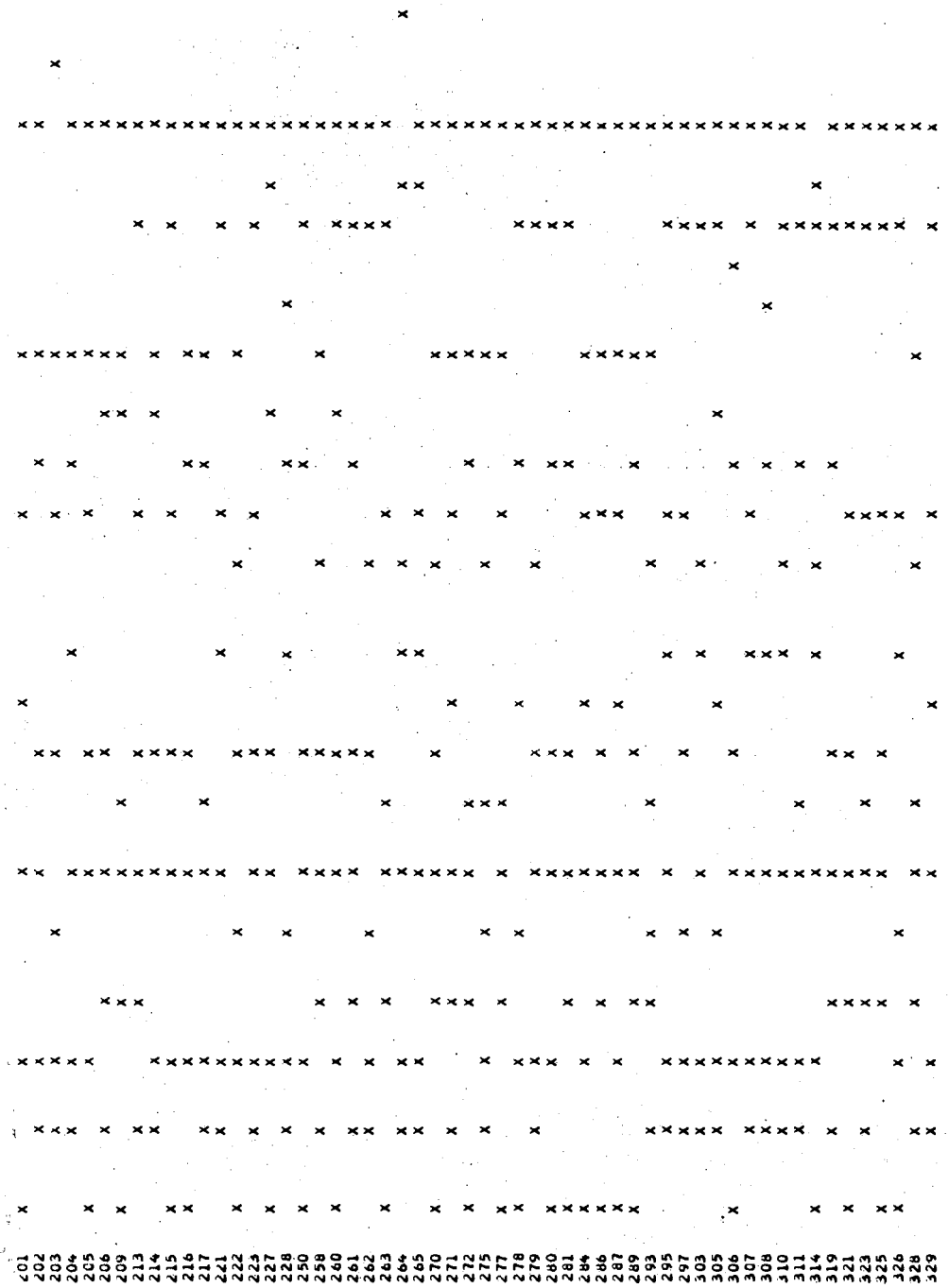
APPENDIX W

SUMMARY OF SCHOOL DATA SHEET INFORMATION

FOR PARTICIPATING SCHOOLS

SUMMARY OF SCHOOL DATA SHEET INFORMATION FOR ALL SCHOOLS PARTICIPATING IN STUDY

SCHOOL	SOCIO-ECONOMIC COMPOSITION		DEMOGRAPHIC FEATURES		SEX OF PRINCIPAL		ENROLLMENT				TEACHER'S AGE RANGE				ORGANIZATIONAL PLAN					INTERNAL WALLS		
	T-I	NT-I	U	R	M	F	< 200	201 400	401 600	> 600	< 30	31 40	41 50	> 50	S-C	AG	NG	OC	TT	PERM	FLEX	NON
101		X		X		X		X				X			X					X		
102	X		X			X		X				X						X		X		
106	X		X			X			X		X							X		X		
108	X			X		X				X	X							X		X		
110		X		X		X		X				X			X					X		
111		X	X			X		X				X						X		X		
112	X		X			X			X			X			X					X		
113		X	X			X		X					X					X		X		
114		X	X			X	X					X			X					X		
115	X			X		X		X				X			X					X		
117		X		X		X		X					X		X					X		
119	X		X			X			X			X			X					X		
121		X	X			X		X						X	X					X		
122	X		X			X		X					X		X					X		
124	X			X		X	X				X				X					X		
126		X	X			X			X			X						X		X		
127	X		X			X		X				X						X		X		
128		X		X		X				X		X			X					X		
129	X			X		X		X				X						X		X		
130	X			X		X		X				X					X			X		
131	X			X		X	X						X					X		X		
132	X			X		X				X		X			X					X		
133	X			X		X			X				X					X		X		
136	X			X		X		X				X			X					X		
137	X			X		X		X				X			X					X		
140		X	X			X				X			X					X		X		
143	X			X		X			X			X						X		X		
145	X		X			X				X			X			X				X		
146		X	X			X	X				X							X		X		
147	X			X		X			X			X						X		X		
148		X	X			X		X						X				X		X		
149		X	X			X		X				X			X					X		
150	X			X		X		X			X				X					X		
154		X	X			X	X						X		X					X		
157	X			X		X	X				X				X					X		
158	X			X		X		X				X						X		X		
160	X		X			X	X						X					X		X		
161	X		X			X		X						X	X					X		
162	X			X		X		X				X			X					X		
164		X		X		X		X				X						X		X		
165	X		X		X			X					X		X					X		
166	X		X		X			X						X	X					X		
167		X		X		X		X					X		X					X		
168	X			X		X	X					X						X		X		
169	X			X		X	X							X				X		X		
172	X			X		X	X				X				X					X		
179	X		X		X		X					X						X		X		
187	X		X			X			X			X			X					X		
189		X		X		X		X				X						X		X		
192	X			X		X			X			X						X		X		
193	X			X		X			X				X		X					X		
195	X			X		X	X				X							X		X		
198		X		X		X	X				X				X					X		
199	X			X		X		X			X				X					X		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VITA

Donovan Moore

Candidate for the Degree of

Doctor of Education

Thesis: EDUCATIONAL ENVIRONMENTS OF ELEMENTARY SCHOOLS IN OKLAHOMA

Major Field: Elementary Education

Biographical:

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